# A Role and Reference Grammar Description of Tupinambá 

Dissertation

by

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# A Role and Reference Grammar Description of Tupinambá 

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#### Abstract

Tupinambá is the first attested language of the Tupí-Guaraní family and it has a story that one can follow from its first attestation to the present through its descendants. Making use of RRG, a linguistic theory that is informed by cross-linguistic diversity, I present the first typologically adequate description of Tupinambá. This description introduces the main aspects of Tupinambá grammar, including phonology, morphology, syntax, and information structure, accounting for the interface between syntax, semantics, and pragmatics.


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## List of Abbreviations

1 first person

2 second person

3 third person

A agent-like argument of canonical transitive verb

ABL ablative

ACT actor

ADV adverb(ial)

AFD actual focus domain

ALL allative

ANTIP antipassive

ARG(s) argument(s)

ASP aspect

AUG augmentative

AUH acto-undergoer hierarchy

CAUS causative

CLM clause linkage marker

CONJ conjunction

DAT dative

DCA direct core argument

DELIB deliberative

DEM demonstrative
$\mathrm{DEV}_{\text {PASS }}$ deverbalizer (passive)

DUR durative

ECS extra-core slot

EMPH emphatic

EPEN epenthesis
$\mathrm{EV}_{\mathrm{fh}}$ evidential first hand

EXCL exclusive

FAC factive

FOC focus

FUT future

GER gerund

HAB.AG habitual agent

HOR hortative
hort permissive

IF illocutionary force

IMP imperative

2

INCL inclusive

INGR ingressive
INTJ interjection

INTS intensive

IRR irrealis

ITER iterative

IU information unit

LOC locative

LS logical structure

LSC layered structure of the clause
LSPP layered structure of the postpositional phrase
LSRP layered structure of the reference phrase

LSW layered structure of the word
MP modifier phrase

NEG negation, negative

NFOC nonfocal

NMLZ nominalizer/nominalization
$\mathrm{NMLZ}_{\mathrm{AG}}$ nominalizer (agentive)
NMLZ $_{\text {CIRC }}$ nominalizer (circumfix)
NMLZ $_{\text {PAT }}$ nominalizer (patient)

NMLZ ${ }_{\text {REL }}$ nominalizer (relativizer)
NPST nonpast
NUC nucleus

OBJ object

OBL oblique

OCA oblique core argument

OP operator projection

OPT optative

P patient-like argument of canonical transitive verb

PERI periphery

PFD potential focus domain

PL plural

PoCS postcore slot

PoDP post-detached position

POS part-of-speech

POSP postposition

POSS possessive

PP postpotisional phrase

PRCL particle
$\mathrm{PRCL}_{\mathrm{F}}$ particle used only by women
$\mathrm{PRCL}_{\mathrm{M}}$ particle used only by men

PrCS precore slot

PrDP pre-detached position

PROC process

PRON pronoun

PSA privileged syntactic argument

4

PST past

Q question

R relational morpheme
$\mathrm{R}_{1} \quad$ relational morpheme of contiguity
$\mathrm{R}_{2} \quad$ relational morpheme of non-contiguity
$\mathrm{R}_{3}$ relational morpheme of co-reference
$\mathrm{R}_{4} \quad$ relational morpheme of human dependent

RECP reciprocal

RED reduplication
$\mathrm{RED}_{\mathrm{D}}$ reduplication disyllabic
$\mathrm{RED}_{\mathrm{M}}$ reduplication monosyllabic

REF referential

RFLX reflexive

RP reference phrase

RPIP reference phrase initial position

S single argument of canonical intransitive verb

SCAU sociative causation

SEMEL semelfactive

SG singular

SR switch reference

TG Tupí-Guaraní

TNS tense

TOP topic

TRSL translative

TUP Tupinambá

UND undergoer

VOC vocative

## Primary sources

AA Anchieta Arte (Anchieta 1595)

Araújo Araújo Catecismo (Araújo 1618b)

CC Cartas Camarões (Navarro 2022)

DC I Anchieta Doutrina Cristã I (Anchieta 1618a)

DC II Anchieta Doutrina Cristã II (Anchieta 1618b)

FA Figueira Arte (Figueira 1687)

Poemas Anchieta Poemas (Anchieta 1997)

Teatro Anchieta Teatro (Anchieta 2006)

## Introduction

Nenhuma língua primitiva do mundo, nem mesmo o sânscrito, ocupou tão grande extensão geográfica como o tupi e seus dialetos; com efeito, desde o Amapá até o Rio da Prata [...] desde o Cabo de São Roque até o Javari, [...] estão, nos nomes dos lugares, das plantas, dos rios e das tribos indígenas [...] os imperecedores vestígios dessa língua. Magalhães, 1876, p. 28

This dissertation aims to describe Tupinambá (TUP) or, more precisely, the language attested almost exclusively in Jesuit religious texts, a native South American language spoken along the coast of Brazil at the time of the Brazilian 'discovery' in 1500. This language belongs to the Tupían family in which it is a member of the Tupí-Guaraní (TG) branch. The Tupían family is one of the largest language families in South America (see Section (1.2).

This language has been dead for about three hundred years, a fact that, combined with its relatively small corpus, poses a challenge for its description. Furthermore, although the term Tupinambá is controversial (see Section [1.2), I employ it throughout this work to refer to whatever variant of the language was spoken on the coast, attested from Staden to Bettendorff (see Section [L.5). I also avoid the name Tupí, commonly used in Brazil, since "Tupí" has established itself as the name of the language family.

As expressed by Payne (1997, 2),
'when a language does become extinct, ... the linguistic description and other materials remain as a central part of the cultural heritage of descendants of the language's speakers, as well as of all humanity. Without this documentation, the language, along with the cultural traditions and wisdom embodied in it, is lost forever.'

It is in this spirit that this study of TUP is presented. One of its goals is to contribute to typological research, to Tupían studies, and to human knowledge, since language is a fundamental aspect of the human species (see Everett 2012, 2017). According to Song (2018, 78), ' $10 \%$ of the world's languages may have decent descriptions (read: adequate for typological research)' - although this percentage may be higher now. This description of TUP will hopefully contribute to increasing this number.

The description of the language is carried out within the framework of Role and Reference Grammar (RRG) (see Section B). The choice of the framework is straightforward. RRG captures and explains the interactions between syntax, semantics, and pragmatics through tools and principles which are motivated by typology and, in particular, the need to account for the cross-linguistic diversity exhibited by different grammatical systems. Thus, I consider it the best option available to describe these interactions, especially because Tupinambá has never been comprehensively described within a modern linguistic framework (see Section [..5).

A grammar of TUP can play a significant role for historical linguistics in the diachronic study of Tupí-Guaraní (TG) languages. From the early texts in the sixteenth and seventeenth centuries, one can continuously follow its development through its descendants, the different forms of 'Língua Geral' (see Rodrigues 1996b), up to the modern Nheengatu, spoken nowadays by about ten thousand individuals in northwestern Amazonia (Cruz 2011, 16-18). The study of TG languages has profited from Tupinambá and has contributed to our understanding of South America in many ways, including migrations, contact patterns, archaeology, plant ecology, and genetics (Noelli et al. 2018; Balee 2001; Castro e Silva et al. 2020; Silva et al. 2022; Castro e Silva et al. 2022; Ferraz Gerardi and Reichert 2021; Ferraz (ierardi et al. 2023). It has also been important for anthropology and for the study
of other Tupí-Guaraní languages and cultures, as can be seen in works such as: Wagley and Galvão (1949); De Castro (1992); Ribeiro (1996); Cormier (2003).

This dissertation is organized as follows: in this chapter, an introduction to the Tupinambá people is given in Section [.]. and their language is presented in Section [.2]. Section [.3] briefly summarizes the typology of TUP. The main primary sources for the language are introduced in Section [1.5, and previous work on the language is discussed in Section (??). Chapter $\rrbracket$ discusses the phonology of TUP. The theoretical framework guiding the description, Role and Reference Grammar (RRG), is presented in Chapter [3. Chapter 41 discusses word classes, noun classes, relational markers and adverbs. In Chapter [, basic clause patterns are presented followed by Chapter ${ }^{6}$ on the layered structure of the clause in TUP. Lexical categories are presented in Chapter ©. The reference phrase is presented in Chapter [8. Chapter deals with information structure, and Chapter discusses complex sentence types. Finally, the last chapter provides some concluding remarks.

The orthography used in this study is based on the phonological inventory laid out for the language in Chapter 】. I consider this to be an important issue because there is little agreement among published sources regarding how to write TUP, but all sources seem to prefer a Portuguese-based orthography. All the examples used throughout the work are from the original sources, thus avoiding the risk of presenting something which is not attested or which could not have existed. As for the translations of the examples into English, I have tried to keep the structure of the TUP constructions as close as I could to the original translations. This should account for the fact that some translations, although grammatically correct, may sound unnatural to native English speakers.

### 1.1 The People

On April 22, 1500, the men from Cabral's fleet, on the Brazilian coast where nowadays lies the city of Porto Seguro in the state of Bahia, first encountered Brazilian indigenous people (Hemming (1978) ${ }^{m}$. The language spoken by those people on the beach was unknown to

[^0]

Figure 1.1: Map showing possible Tupinambá presence along the coast in 1500 represented by the green shade
the eight interpreters on board (see Bueno 2016, 36, 136), and it would reveal itself to be spread along the extensive Brazilian coastline, initially from the coast of the state of Ceará, in the northeast, to Cananeia in the south ${ }^{\square}$ (Métraux 1948, Anchieta (1933), Cardim 2009). The distribution of TUP groups along the coast (excluding the Guaraní groups) is shown in Figure IL.].

Sixteenth and seventeenth century chroniclers registered the names of the coastal groups, among which the following were found: Ararape (Cardim 20)9, 197); Uiatã (Cardim 2009, 195); Guaracaio or Itati (Cardim 2009, 197),; Potiguara on the coast between the Parnaíba and Paraíba rivers ${ }^{[]}$; Kaeté on the coast between the mouth of the Paraíba and São Francisco; Tupinambá from the São Francisco river to Camamu or Ilhéus; Tupinikin from Camamu to the São Mateus or Cricaré river; Temiminõ in the southern state of Espírito Santo and on the lower Paraíba; Tupinambá (Tamũja) from Cape São Tomé to Angra dos Reis, but also in the hinterlands; Tupinakin from Angra dos Reis to Cananéia ${ }^{\text {¹ }}$; Carijó south of São

[^1]Vicente on the coast and hinterlands until Paraguay; Tupina (see Métraux 1928a, 17-18) west of Kaeté; Amoipira on the left of the São Francisco in the hinterlands of Bahia (Sousa 1851, 44). There are also other groups whose locations cannot be precisely determined. ${ }^{\text {T }}$ In addition to these coastal tribes, different ethnic groups who spoke languages unrelated to TUP were found intermittently along the coast or at least not far from it, such as Tobajar, formerly at the Serra de Ibiapaba and which later migrated to the upper Mearim river in Maranhão (see Métraux 1928a, 16).

Whether the names of the groups indicate some kind of relations among them, e.g., that Tamũja 'grandfather' and Temiminõ 'grandchild' were so named because they were seen as early and later inhabitants of the coast, respectively, is but a conjecture. Potiguara 'shrimp eater', according to Edelweiss (1947, 33-55), is probably an epithet given by another group. The name Tobajara 'enemy' (see Staden 1557, chap. XIIII) also means 'brother-inlaw' (see Araújo 1618b, 116v and Anonymous 1952a, 87), and it was also applied to hostile groups who spoke unintelligible languages. ${ }^{6}$.

The extensive territory occupied by TUP speaking groups given their linguistic ${ }^{\square}$ and cultural similarity (Cardim 2009) is compatible with their possibly recent arrival at the coast (Métraux 1928a, 12-19, Métraux 1927, Hemming 1978, 24, and Ferraz Gerardi et al. $\left[2(023)^{\mathbb{D}}\right.$. Upon arrival at the coast, Tupían speaking groups met with speakers of different ethnic groups known to have inhabited the coast (see Métraux 1948, 97): the Guitaca (see e.g. De Léry 1972, 354 and Anchieta 2006, 64) at the mouth of the Paraíba; the Aimoré

[^2]between Espírito Santo and Bahia; and the Tremembé (see e.g. d’Evreux 2014, 178-180) between Ceará and Maranhão, among others. These non-Tupían groups were referred to as Tapuja (tapiPija 'foreigner, barbarian') (see Anchieta 2006, 10,14,16 and Cardim [1881, 54-60; see also Ribeiro (2009).

Witness to other non-Tupían groups not far from the coast are the grammars or catechisms composed by religious missionaries: the Kiriri cathecism published in 1698 (Mamiani della Rovere [698), followed by a grammar of this language one year later (Mamiani della Rovere [699). In 1709 the Capuchin Bernando Nantes published his catechism (Bernardo et al. 1709 ) in the Dzubukua language, closely related to the Kiriri language described by Mamiani, Kippea. Other works have been lost, such as those by Manuel Viegas, published in the language of the Maromomin in 1585, the catechism by Father Manoel Nunes in the language of the Nheengaiba ${ }^{[9}$, and the works of Bettendorff, who, besides a doctrine written in Língua Geral, composed catechisms in two other languages, Tapajó and Urucuçu, both now lost (Lee [2005, 141-143).

Returning to the Tupían groups on the coast, the linguistic and cultural similarities among them based on the information handed down by the early sources suggest that these groups did not form discrete social units (Fausto 1998 ). This obscure scenario suggests the numerous disagreements regarding the ethnonyms and their locations. Were the Tupinikin ${ }^{\text {四 }}$ the allies of the Portuguese in São Vicente (Cardim 2009, 197,274) or the allies of the French in Rio de Janeirom (Thevet [1953, 296 and De Léry 1972, 29)? Staden (1557) asserts that in São Vicente the people called themselves Tupinakiya and were called Tobajar by their enemies, the Tupinambá. Anchieta, on the contrary, says that the natives from São Vicente were Tupí (see Edelweiss 1947, 44). Such disagreements abound among sixteenth and seventeenth century sources.

The coastal groups that spoke TUP in the sixteenth century had a sophisticated economy ${ }^{[2]}$ and an almost amorphous social system, with nothing between the family and the

[^3]tribe (De Castro [992, 24) ${ }^{[\pi]}$. They lived in villages $(t a \beta)$ consisting of a few large common rectangular houses (ok) whose sizes varied according to how many people lived in them. This type of house was common to all Tupí-Guaraní (TG) populations (Noelli 2022); the ceilings were made with palm leaves (pino $\beta$ ) (genus Attalea) or pati (Syagrus botryophora (Mart.) Mart. or Syagrus romanzoffiana (Cham.) Glassman), or with leaves of (kapar) (unkown species) ${ }^{[4]}$, on a wooden frame which lays on a column (okita) stuck in the ground. The spaces between these pillars were called koti 'living room, corner, room' ${ }^{[5]}$ On each side of the house, there was a door (oken). Each house hosted about thirty families. The building of the $o k^{w}$ am 'future house' was the result of the potirõ 'collective effort' (see Noelli 2(222, 207). Three representations of TUP houses are given in Figure I.2a. Villages could eventually be surrounded by fences (ißirá), pointed platforms stuck in the ground, as shown in Figures $\square .2 \mathrm{a}$ and L.2.

The houses could last up to four years (Fernandes 1949, 35), and this was also the necessary amount of time for the soil of their slashes (ko) to be exhausted. Once the soil was exhausted and the roof could no longer contain the rain (amãn), the group would migrate to a new area nearby (Staden 1557, 155). In order to be protected from incursions, the village could be surrounded by fences $(i \beta i r)^{[6]}$. Inside the house, there were no dividing walls, and each family occupied the space between two columns. Hammocks (ini) made mainly of cotton (aminiju) (Cardim 1881, 6-7) were to be found in the houses, along with other furniture
 pots (kamusi, igasa $\beta$ ), baskets (panaku), sieves (urupem), weapons (popeswar), groceries, etc. Each family kept, in their division, a fire lit day and night (Cardim 1881, 9), which, during the night, protected against the cold and against mosquitoes (jati $\hat{u} \tilde{u})$.

[^4]
(a) Induction of the captive in a TUP village with four houses from Staden (I557)

(b) The killing of a prisoner in a Tupinambá village by de Bry $(1592,106)$

Figure 1.2: Representations of TUP villages with houses, patios, and fences

Common to all houses, the patio (okar) was the place where social and religious life evolved, and where rituals (pepir) and dances (porasej) were performed ${ }^{\square \square}$ along with chants (je Pengar). The villages were located preferably on hills, exposed to the wind, close to waterways and arable land, where they practiced horticulture. In their slashes (ko) they planted corn (aßati) and roots (apo), such as manioc (maniPok), yam (kara) (Family: Dioscoreaceae), peanut (manu $\beta i$ ) (Arachis hypogaea L.), and sweet potato (jetik). They also cultivated pepper (kipĩja) and cashew (akaju), which was used to keep track of the months and year (d’Abbeville [6/4, chap. 51). They used only two horticultural instruments, the digging stick (sira) and the stone axe (ji) (see d'Abbeville [614, 226). They did practice exchange - even with non-Tupían groups (see De Léry 1972, 71 and d’Evreux 2014, 95, 184) - although not intensively.

The Tupinambá used many ornaments, such as hats with feathers (akayaa $\beta$ ) of different colors, diadems (akangatar) made with red heron (war) or macaw (kanine) feathers, necklaces, bracelets, and leg ornaments (popir). ${ }^{\boxed{18}}$ Remarkable red heron feather cloaks (waraaßusu) were the most common feather ornaments. Mainly chiefs (morußisaß, tußisaß) and important men had shell necklaces, some up to nine meters long, which had to be wound several times around the neck; the women also wore long necklaces with loops that covered their chests. They also made bracelets with shells (japã, minõ) or feathers (awan). All men, and only men, from the age of five or six, carried 'tembetas' (temetar or metara) of stones of different colors on their lower lip, especially those of green (metaro $\beta \mathbf{i}$ ). The men also made a hole or two in the wings of their noses, into which they stuck long, thin pieces of wood or small white bones. Both men and women, but most commonly the latter, pierced the lobes of the ears, to introduce an ornament made of monkey bone (namipaj) or a wooden roller tangled with cotton thread. They removed all the hair on the body, including the eyelashes and eyebrows. Men shaved their hair from their foreheads up to their ears, using a bamboo (kise) or quartz knife (itakise). The women, however, wore their hair long and loose over their backs and, for work, tied it on top of their heads. Both men and women

[^5]tattooed themselves, the latter only when they reached puberty, the former whenever they killed an enemy. They were also painted on all festive occasions, especially in black, with the juice of genipa (janipa $\beta$ ), and in red, using the juice of annatto (uruku). Their conception of time was mainly based on the cycles of the moon (jasi), but apparently some stars (jasitata) or constellations also allowed them to keep track of time (Thevet 1953, 314). The name of a star (or constellation), sejsu [sej.'Ju], is mentioned in d'Abbeville (1614, chapter $51)^{101}$.

Hunting (jeporakar, ka?amomirõ) and fishing (ekij, pinaejtik) were fundamental activities for the subsistence of the groups, and they were carried out mostly by men ${ }^{20}$. Men chased deer (swasu), peccaries (tajtetu, tajasu), monkeys (kaPi), agoutis (akuti), armadillos (tatu), and caymans (jakare). Jaguars (jawar) and tapirs (tapiPir) were caught in concealed pit falls (mukuiri). Their hunting weapons were bows (i $\beta$ irapar) and arrows (uPuß). As for fishing, they killed fish by poisoning calm waters with (timo) (Dahlstedtia pinnata) and (tingi) (Magonia pubescens A. St.Hil. or Paullinia trigona Vell.). They also used hooks made of thorns (ju, juati) and fishing lines made with the fibers of tukuma, tuk $\tilde{u}$ (Bactris setosa). This lines disappeared soon after European contact. They used canoes (igar) that could take up to thirty individuals (Anchieta 1933, 203). Other activities carried out only by the men included preparing the field for plantation, i.e., falling and burning, and building canoes (igar), bows (i $\beta$ irapar) and arrows (uPu $\beta$ ), and clubs (ißirapem) (see Staden 1557, 177) and their adornments. Men also built houses, from cutting the wood with their stone axes ( $j i$ ) to finishing the roofs, and were responsible for obtaining fire (tata).

The women maintained the slashes and collected roots, fruits, and cotton. They helped catch fish and oysters, and had to clean the canoes. An important task carried out by women, more precisely by pre-teenagers (kujãtaí), was the preparation of an alcoholic fermented beverage (kawi), and the fabrication of pottery (ejaशẽ, eja Rẽpepo, kamu). Only women took care of the house, cooked, kept the fire on, and made sure water was always at hand (see Fernandes 1949, 55-57). Women also prepared flour (upi) from different roots,

[^6]as well as making manioc porridge (miga?u). They roasted meat (to?o) on the grill (moka) (see Léry 1578, 124-125 and Staden 1557, 15). As attested by written and visual sources, they had domestic animals (mimaß) such as monkeys (kapi), armadillos (tatu), and parrots (ajuru).

War (maran, warini ${ }^{[1]}$ ) played an important role in the TUP society (see Fernandes 1970 and De Castro 2020), and it was intrinsically connected to the ancestor cult and to anthropophagic rituals. ${ }^{[2]}$ Exocannibalism, along with name bestowal and affinity (De Castro 1992, 155-163), are the main features that characterize TG peoples beyond their linguistic identity and behind their apparent morphosociological diversity (see De Castro 2020, 81116). War was related to the preservation of the territory, demographic growth, and the conquest of new territories in order to secure additional natural resources (Fernandes 1949, 43). The war was so important for a man that he dropped his childhood name only after having killed an enemy, after which he could marry, have legitimate children, and drink beer (kawi) (see De Castro 1992, 151). The drinking of beer ka?u was associated with leisure, celebrations, and singing je Rej, in opposition to the consumption of food, which was done in silence, as recorded by the early chroniclers (see De Castro 1992, 353 footnote 8 ).

The Tupinambá believed in the existence of supernatural entities ${ }^{[2]}$ which inhabited the jungle. Many names are known from the extant texts: Ajãq $\eta^{24,}$, Jurupari, Kurupir, MaPetatá, and Wajupja. The main supernatural entity was the spirit of thunder (Tupãn) ${ }^{[2]}$, responsible for the rain, lightning (tuрãßeraß), and thunder (tupãsunuŋ). The connection between the physical world and that of the supernatural entities was made through the shamans (pajé or karai $\beta$ ), who possessed the knowledge of healing, either through spells (jekaraimojãŋ) or potions (posaŋ).

After a few decades of peacefully trading brazilwood for metal tools, the rivalry between the Portuguese and the French spread among the indigenous coastal groups, with

[^7]some groups taking the side of the French and other groups the side of the Portuguese. Subsequently, the enslavement of indigenous peoples allowed by royal patents (see Hemming 1978, 37-38) would cause many displeased natives to flee the Portuguese yoke. The arrival of the Jesuits in 1549 would give the natives more reasons to flee contact with the Europeans: the forced conversion and the various diseases (see Hemming 1978, 140-145). In his book published in 1576 , Gândavol $(2004,32)$ writes that 'there were many of these groups throughout the coast in the captaincies. They were everywhere when the Portuguese began to settle the land; but because these same Indians opposed the Portuguese, often betraying them, the governors and captains of the land slowly annihilated them, killing many of them. Others fled to the hinterland, leaving the coast free from natives throughout the captaincies' (my translation). ${ }^{\text {[] }}$

It is not an exaggeration to assert that by the year 1700 the Tupinambá culture was already modified in its entirety, practically lost, perhaps except for some small groups that, having fled, found refuge in isolated areas away from the coast. Presently, there are about twenty-six thousand individuals who recognize themselves as Tupinambá, Tupinikin, or Potiguara ${ }^{[7]}$. Since their ethnography lies beyond the scope of this short historical introduction, they will not be discussed.

### 1.2 The Language

Tupinambá belongs to the Tupí-Guaraní (TG) language family, a branch of Tupían established in 1958 (Rodrigues [1958a), though many of the internal relations now accepted were already known much earlier (see Hervás y Panduro [1805; von Martius [1867, Brinton [2009, 231-237). Recently, the classification has been refined and different proposals have been formulated thanks to the addition of more data and the inclusion of previously unstudied TG languages (Rodrigues 1985; Dietrich 1990b; Rodrigues and Cabral 2002; Ferraz Gerardi and Reichert [2021; Ferraz Gerardi et al. [2023).

[^8]Most of the sub-groups of Tupían are found in West Brazil, in the state of Rondônia (Galucio et al, 2015). Since this region contains the greatest diversity of sub-groups, it is considered to be the homeland of the family (see Rodrigues and Cabral 2012; Eriksen and Galucio 2014; Galucio et al. 2015). The largest sub-group, Tupí-Guaraní (TG), is also the most widely spread language family (sub-group) geographically in South America, with more than thirty living languages in Brazil, Peru, Argentina, Bolivia, French Guiana, and Paraguay. Based on the same criteria, its homeland is posited to be situated on the XinguTocantins interfluve. As well as having the greatest diversity, it is also associated with a type of ceramics that may have spread from that area (see Ferraz Gerardi et al, 2(1)23). Connections between many TG groups can also be inferred on cultural bases, such as the existence of agriculture and a strong tendency to sedentarism (Noelli 1996), a minimal repertoire of domesticates, and associated patterns of plant nomenclature and classification (Balée and Moore 1994). Additionally, parallels in the vocabulary of these languages are found in certain shared ritual and mythological complexes that are relevant to ethnozoology.


Figure 1.3: The Tupí-Guaraní languages (in green) along with the distribution of the TG archaeological record (black dots). TUP is represented by the dot on the coast (north-east). From Ferraz Gerardi et al. (2023)

The Tupían groups inhabiting the coast spoke a single language, Tupinambá (see Sousa 1851, 57, Cardim 1881, 49,194-195) with minor differences in pronunciation and grammar (Anchieta 1595, 1v). These differences could hardly account for different languages, as suggested by e.g. Cabral (2011) (see Rodrigues 2011b). ${ }^{\text {[8] }}$

While Anchieta (1595) acknowledges differences in pronunciation throughout the coast, Figueira (1687) is silent in this regard, perhaps because he was aware of the Jesuit's efforts to 'standardize and render closely-related Tupí-Guaraní speech forms considered the "general language of the coast" into one uniform language" (Lee 2005, 127) (see also Barros (20)4). He is probably describing one already standardized and uniform language, for pedagogical and practical purposes (Zwartjes 201], 165). His grammar was published about seventy years after Anchieta's draft had been sent for publication, when Tupinambá was already being used a lingua franca among the populations on and near the coast and in the Jesuitic mission (see Lee 2005, 50-51).

From the year of the 'discovery' (1500) to the end of the 1530s, a trade jargon (see Lee 2005, 46-49) began to develop. A prominent role was played by those foreigners who had become part of local native societies (see Léry 1578, chap. XVI), serving as mediators between the indigenous people and the Europeans. Since this scenario was common throughout the coast, there is no doubt that these men and women, whether exiled, survivors of shipwrecks, or sent by the crown, were crucial in the creation of a lingua franca (Lee 2005, 31-40).

Migration from Portugal intensified after 1530 in order to settle the land Hemming 1978, 34-44). As soon as settlements were established, the practice of polygamy marked the alliances between the Portuguese and the TUP (Monteiro 2001, 34). Africans, Europeans, and natives of different tongues from the hinterland reached the settlements and thus the TUP spoken throughout the coast began to undergo changes for the sake of more efficient communication. Meanwhile, Portugal was sending orphans to the colony to learn the lan-

[^9]guage and serve as interpreters (see de Almeida 1910a, 260 and de Almeida 1910b, II, 280281), and the French were doing the same (see de Léry 1057, 27). These are perhaps the bilinguals mentioned in Staden (1557, 55).

When the Jesuits arrived in Brazil for the first time in 1549, they chose Tupinambá as the common language (lingua geral) (Altman 2003), and they founded mission villages through which, by the end of the century, they 'controlled virtually all Indians under Portuguese rule' in about thirty mission villages (Hemming 1978, 98, 179). In these missions, children were separated from the adults in order to be instructed without the direct influence of their parents, and they spoke their native tongue, which was the language of the missions. At first, Jesuits used interpreters, the línguas (see Leite 1940; Barros 2002), which 'were selected from colonists of Portuguese birth living in Brazil before the arrival of the Jesuits' (Lee 2005, 132). With the arrival of Portuguese settlers (Gầndavo 2004, 33) (see Rodrigues 2010a, 37, Schaden (1954), and Lee 2005, 156-162), mestizo populations were rapidly formed, and the bilingual children would later be used by the Jesuits. The bilingual generation instructed in a standardized language, the Jesuitic Tupinambá, in the missions (see Leite [1950, 40 and Barros 2004) shaped a kind of creole, the 'Língua Geral" ${ }^{[29}$ (see Muller et at. 2019, 19-22, 72-79). This language would later spread south and northwards. In the south, this language, Língua Geral Paulista, survived until the nineteenth century (see Rodrigues 1996a; Leite 2013) and the northern variety would reach Amazonia, with the name Língua Geral Amazônica, and become a lingua franca used by many ethnic groups (see Freire 2004), surviving to our days as Nheengatu (see Cruz 2011).

One strategy of the standardization process was the avoidance of grammatical patterns which did not have a parallel in Portuguese or which were perceived as complex.

[^10]This is clear from the fact that some of the grammatical constructions presented in Anchieta (1595) and in Figueira (1687) are rarely found in other texts, even in other texts by Anchieta himself, such as object-incorporation with a stranded modifier. Moreover, in the prologue (Aprovaçam) to the grammar by (Figueira 1687), the editor writes that this description was less confusing than the previous one by Anchieta (1595) - not to mention the fact that Figueira (1687) seems to have abandoned some of the grammatical features present in Anchieta (1595).

The missions were a multilingual environment (see Cardim 2009, 288 and Lee 2005, chap. 2), where natives of different ethnic groups lived with TUP-speaking individuals. A complex language would be an obstacle to a faster learning process. Therefore, the language described by the Jesuits, far from being the real language as spoken by the natives, was ' $a$ simplified and poor idealization of it' (de Freitas Leite 2005). ${ }^{101}$ The variety developed in the missions which was used by non-native speakers, such as natives of other ethnic groups like Europeans and Africans, ended up establishing itself as an inter-ethnic means of communication, which, I suppose, made it quite different from the Tupinambá spoken before the arrival of the Europeans (Freire 2004, 66-81).

The foundation of the city of Belém, in 1616 , brought the first settlers and missionaries to the Amazon. They had brought with them TUP-speaking individuals from the coast, consequently putting them in contact with other TG languages, such as Guajajara (see Bettendortt 1698, 94, 303-307, 344). The language then occupied a larger part of the coast between the Pará (Tocantins) and Parnaíba rivers (and later also at the Pindaré, Mearim, and Itapicuru rivers) (see Sousa 1851; d'Abbeville 1614; Bettendortf1698; Wagley and Galvão 1949; Gomes 2002 Wagley and Galvão (1949); Gomes (2002)). This lingua franca which was being used by different populations, especially in the missions, gradually diverged from the language of the coast, which was slowly disappearing, because natives from the coast increasingly fled from Europeans. By the end of the eighteenth century, Tupinambá was already an extinct language (Borges and Nunes 1998), and by the mid-eighteenth century,

[^11]the language described by Anchieta (1595), Figueira (1687), and Araújo (1618b) was no longer understood by those in the north (Daniel 1975, 225). Bettendortt (1681) was written due to the difficulty the natives had with understanding the earlier written doctrines (see also Lee 2005, 185 and Freire 2004, 171), but it seems that the process of language change was not immediately captured by religious texts in use (see Daniel 1975, II, 227 Barros 2003). The anonymous grammar of the Língua Geral Amazônica, a 1750 manuscript (Anonymous 1750 ), is an important piece of evidence attesting the changes that had taken place by the time of its publication. The language it describes differs in many aspects from the language described by Anchieta (1595) and Figueira (1687) (see Zwartjes 2011, 168-175).

Language manuals had already been circulating for some time before Anchieta concluded his grammar, which must have been before 1556, because Manoel da Nóbrega took one of its drafts to Salvador in this year (Schmidt-Riese 2016) (see also de Almeida 1910b, $\mathrm{I}, 301$ ). When it was published in 1595 , it was the second grammar of a native American language to be published - the first was a grammar of Quechua by Domingo de Santo Tomás published in 1560. In 1574, a Christian doctrine had already been written in the language of the coast, by father Leonardo do Vale (see Barros 2004), but this text has been lost (Anchieta 1618a, 36). The forty years between Anchieta's final draft and its publication is certainly enough time for the 'standardization' process to show its initial effects beyond the natural changes that could have taken place in this time span. The same applies to the grammar by Figueira.

During the colonial period of Brazil (from the $16^{\text {th }}$ to the $18^{\text {th }}$ century), the name Língua Brasílica ${ }^{[6]}$ was often used in addition to 'Língua Geral' (see Zwartjes 2011). It was only in the nineteenth century that the name Tupi ${ }^{132}$ spread in Brazil, initially replacing the name Língua Brasílica in scholarly circles (Rodrigues 1958b, 5-6). The term Tupí originally referred to a group in São Vicente (see Anchieta 1595, 1v) ${ }^{[3]}$

[^12]Among ethnologists, nowadays, Tupí is also the general name of the peoples considered to be related to the Tupinambá, and therefore designates some languages that are certainly related to the old Língua Geral, but not at all identical. As a result, the name Tupí has become an unsuitable term for describing either what is here called TUP or the variety of TUP spoken in the south. While the term 'Tupí' only started being used to refer to the language in the nineteenth century, the name Tupinambá appears in the eighteenth century, referring to the language of those Tupinambá from Pará, in order to distinguish this language from the language spoken there by the population of mixed origin, which was already different from it (Rodrigues 1986).

### 1.3 Typological Profile of TUP

Tupinambá has an average vowel inventory (see Maddieson 2013b) and a moderately small consonant inventory (see Maddieson 2013a). The syllabic structure is relatively simple (see Sec. 2.2). There is only one liquid phoneme $/ \mathrm{f} /$. There is a high central vowel $/ \mathfrak{i} /$ and contrastive nasalization of vowels, both of which are distinct characteristics of lowland Amazonian languages (Aikhenvald 2012).

TUP is head-final and head-marking. This means that core arguments (A, S, and O ) are expressed on the predicate with bound indexes in the SOV order. The alignment is exclusively nominative-accusative, contrary to what has been suggested previously, e.g., in Jensen (1998a, 565).

TUP is mildly agglutinating - not elaborately agglutinating as suggested by Rodrigues and Cabral (2012) - and combines suffixes and prefixes (see Table I. 1 ). It thus exhibits a weak degree of synthesis, although 'the boundary between a synthetic, a highly synthetic, and a polysynthetic language is moot' (Aikhenvald 2012, 129).

Some examples of agglutinating structures are given in (II):

[^13](1) a. Neporoamotare?imawera
ne $=\varnothing$-poro-amotar-e?im-wer-a
$2 \mathrm{SG}=\mathrm{R}_{1}$-ANTIP ${ }_{\text {HUM }}$-care-PRIV-PST-REF
'Your past disregard for people.' (DC, II, 79)
b. Eporapitiumẽ!
e-poro-apiti-umẽ
2SG.IMP-ANTIP-kill-NEG.IMP
'Do not kill (people)!' (DC, I, 143)

Polysynthesis is very reduced in TUP, being confined to cases of object incorporation, which when joined by an argument index form a whole sentence, as in (】):
(2) a. Ojepoej
o-je-po-ej
3-RFLX-hand-wash
'He washed his own hands.' (Araújo, 61)
b. Erejemoaipupukipe?
ere-je-mo-a?ir-puk-puk-i=pe
2SG-RFLX-CAUS-seed-bust-RED-EPEN=Q
'Did you cause yourself to ejaculate?' (DC, II, 90)

Gender and number are not categories of the TUP noun. However, TUP does have (nominal) tense, which is also a widespread feature in South America (see Aikhenvald 2012, 59,159-162). In TUP, either a noun or a reference phrase can be specified for tense. TUP nouns are divided into possessed and non-possessed, with no morphological distinction between alienable and inalienable possession. The system of evidentials is very simple, with only one morpheme. TUP has no core cases, but it has locative(s), dative, translative, and perlative cases. Other oblique suffixes may be analyzed as cases. Arguments are bound to the predicate in $\mathrm{S}(\mathrm{O}) \mathrm{V}$ order. The past is the unmarked tense, while future is overtly marked. A dependent verbal form (gerund) appears in complex constructions with another, fully inflected verb. TUP has noun incorporation and two types of reduplication, monoand disyllabic, each related to a different aspectual notion. Reduplication can also indicate plurality. There are many discourse particles. Demonstratives in TUP include the following categories: proximal- distal, and visible-invisible.

The first person plural distinguishes inclusive (1 person and 2 person) from exclusive (1 person and 3 person) and there is a generic index. A relational morpheme is used to mark the contiguity between a head and its dependent in many constructions.

Like many Amazonian languages Aikhenvald 2012, 385), TUP lacks a possessive verb 'have', using verbless constructions instead.

Tupi-Guarani languages tend to exhibit more prefixes than do most western Amazonian families (Payne 1990), but the number of prefixes and suffixes in the language is nearly the same, as shown in Table [.]. Derivational morphology is predominantly suffixal (see e.g., Dietrich 1990a).

| Feature | Prefix | Suffix | Section |
| :--- | :--- | :--- | :--- |
| Argument indexes | $\checkmark$ |  | $\boxed{4.3 .1}$ |
| Possessor indexes | $\checkmark$ |  | $\boxed{4.3 .1}$ |
| Oblique markers |  | $\checkmark$ | $\boxed{1.4}$ |
| Causative intransitive | $\checkmark$ |  | $\boxed{5.7 .1}$ |
| Permissive | $\checkmark$ |  | $\boxed{6.5 .1 .]}$ |
| Causative transitive |  | $\checkmark$ | $\boxed{1.1 .2}$ |
| Sociative causative intransitive | $\checkmark$ |  | $\boxed{5.7 .1 .3}$ |
| Antipassive | $\checkmark$ |  | $\boxed{5.7 .3}$ |
| Reflexive | $\checkmark$ |  | $\boxed{5.7 .4 .1}$ |
| Reciprocal | $\checkmark$ |  | $\boxed{5.7 .5}$ |
| Verbal Tense |  | $\checkmark$ | $\boxed{6.5 .1 .5}$ |
| Nominal Tense |  | $\checkmark$ | $\boxed{7.3 .1}$ |
| Nominalizers | $\checkmark$ | $\checkmark$ | $\boxed{8.3}$ |
| Gerund |  | $\checkmark$ | $\boxed{10.2 .3}$ |

Table 1.1: Prefixes and suffixes in TUP

Valency changing devices encompass causatives, one for transitive and another for intransitive verbs, and a sociative causative, antipassive, and incorporation. There is no passive derivation. Nominalization is very frequent in TUP and is used for complement and relative clauses.

### 1.4 Linguistic-Ethnographic remarks

There is not much that can be said about the sociolinguistics of Tupinambá, because no native texts of any kind have survived. There is, nonetheless, one aspect that is attested by the Jesuit texts, which concerns male and female speech, a topic on which there are few cross-linguistic studies (see Aikhenvald 2016, chapter 9 and Aikhenvald 2012, 374378).

An interesting sociolinguistic phenomenon is the fact that the gender of one speech act participant (speaker or hearer) determines the phonology, the lexicon, or the morphology of a language ${ }^{54]}$. This type of phenomenon, although it does occur on other continents, is more common in the Americas, especially in South-America ${ }^{[5]}$ (Fortune and Fortune 1975; Borges 2004; Ribeiro 2006; Fleming 2012; Rose 2015a). Many Tupían languages have gender-specific lexical items. This chapter does not include cases relating the gender of the speaker and the gender of the ego of a kinship term, e.g., pikipr 'older sister of woman' and endir 'sister of man'. The lack of attestation of the use of most of the elements presented in this chapter does not allow for any conjecture regarding the statistical indexing of gender, where some forms could be used by both women and men but are more commonly used by one or the other gender.

While cross-linguistically the locus of gender indexicality can be phonological, lexical, morphological, or pragmatic (discourse markers), TUP only has interjections/particles ${ }^{136}$ and some kinship terms indexing gender. This is in line with the observation in Rose (2015a) that at the lexical level, distinctions tend to be limited to a few items. Although common, gender indexicality in discourse markers is restricted to some ten or less items. It is not known whether and to what extent gender indexicality can be reconstructed for Tupían or TG languages.

In Tupinambá, as far as it is attested, gender indexicality is limited to discourse

[^14]markers and particles ${ }^{[5]}$. Throughout this section, subscripts ${ }_{f}$ and ${ }_{m}$ mark female and male speech respectively.

The discourse particles re? $\tilde{i}$ and $r e\{a$ are used by women and men, respectively. Both express expectation.
a. Semenwera
ipo reحĩ
$\int \mathrm{e}=\varnothing$-men-p ${ }^{\mathrm{w}} \mathrm{er}-\mathrm{a}$
ipo renĩ
$1 \mathrm{SG}=\mathrm{R}_{2}$-husband-PST-REF ADV PRCL $_{\mathrm{F}}$
'It ought to be my ex-husband.' (AT, 10)
b. Oso ipo reభ̃
o-so ipo re $\tilde{\mathbf{i}}$
3-go ADV PRCL $_{F}$
'It is expected that he/she/they/it went.' (VLB, I, 102)
c. Oso ipo reRa
o-so ipo re?a
3-go ADV PRCL ${ }_{M}$
'It is expected that he/she/they/it went.' (VLB, I, 102)
d. Oimojay ipo kori milagre amõ maRe iaßaíßaRe
o-i-mojay ipo kori milagre amõ maPe- $\varnothing$ i-a $\beta$ ai $\beta$ - $\beta$ aPe
3 - $\mathrm{R}_{2}$-do certainly today miracle some thing-REF $\mathrm{R}_{2}$-difficulty-NMLZ REL
moaßaiße?ima feroßakéne rePa
mo-a $\beta$ ai $\beta$-e?im-a $\quad$ eer-oßake=ne CAUS-difficulty-PRIV-REF $1 \mathrm{SG}=\mathrm{R}_{2}$-in.front.of=FUT PRCL $_{M}$
'Hopefully he will do some miracle for me, discomplicating things.' (Araújo, 58 v )

These particles, $r e \uparrow \tilde{i}$ and $r e ? a$, may also follow the negative aani:
(4) a. Aani re? $\tilde{\mathbf{i}}$
no PRCL $_{\text {F }}$
'(It is) not like this.' (FA, 127)
b. Aani re?a
no $\mathbf{P R C L}_{\mathbf{M}}$
'(It is) not like this.' (FA, 127)

[^15]$e\{\tilde{i}$ and re $r a$ are also used following the adverbs serã (see VLB, I, 87) and ane (see Figueira, 127).

The particles ju / jo and we are used by women and by men, respectively. They are also used following vocatives, as in 5:
(5)
$\begin{array}{ll}\text { a. } & \text { esi } \\ \int \mathrm{e}=\varnothing \text {-si } & \text { ju! } \\ \text { ju }\end{array}$ $1 \mathrm{SG}=\mathrm{R}_{1}$-mother $\mathbf{P R C L}_{\mathbf{F}}$ 'Oh, my mother!' (FA, 19)
b. $\int \operatorname{eru} \beta \quad$ we!
$\int e=r-u \beta \quad$ we
$1 \mathrm{SG}=\mathrm{R}_{1}$-father $\mathbf{P R C L}_{\mathbf{M}}$
'Oh, my father!' (FA, 18)

See also other particles in (382).

As far as the lexicon is concerned, the vocative terms for sister, when used by a woman, are kỉí, kina? $\tilde{i}(\mathrm{VLB}, \mathrm{II}, 30$; (AA, 14v), nai (AA, 14v), and topi (VLB, II, 30). The vocative terms for brother, as used by women, are tay and tapipa (VLB, II, 31). A vocative term for an older woman is tape (not given in the VLB) for women, and tawpe for men (AA, 14v). The latter is not said to be gender indexing in the VLB (II, 116).

### 1.5 Primary sources and previous work on Tupinambá

This section briefly introduces the sources containing written material in TUP. Primary sources are summarized in chronological order in Table L.2.

The first significant attestation of words and sentences in TUP comes from the German gunner Hans Staden, in his Wahrhaftige Historia (Staden 1557$)^{188}$, in which he describes the nine months he spent as a prisoner of the Tupinambá during his second trip to Brazil. Hans Staden, besides recording aspects of Tupinambá culture, also wrote down

[^16]| Year | Author | Reference |
| :---: | :---: | :---: |
| 1557 | Staden | Staden (1557) |
| 1558 | Thevet | Thevet (1558) |
| 1578 | de Léry | Léry (1578); De Léry (1972) |
| 15?? | Anchieta | Anchieta (1988, 1618a,b) |
| 1583 | Anchieta | de Paula Martins (1941); Anchieta (1948, 2006) |
| 1589-1594 | Anchieta | de Paula Martins (1945b); Anchieta (1997) |
| 1595 | Anchieta | Anchieta (1595) |
| 1614 | d'Abbeville | d'Abbeville 1614 |
| 1615 | d'Evreux | d'Evreux (2014) |
| 1616 | Figueira | Figueira (1687) |
| 1618 | Araújo | Araújo (1618b) |
| 1621 | anonymous | anlonymous (1938); Anonymous (1952a, ${ }^{\text {a }}$ ) |
| 1645 | Felipe and Diogo Camarão, Pedro Poti | Navarro (2022) |
| 1686 | Araújo | Araújo (1618a) |
| 1687 | Bettendorff | Bettendortt (1681) |

Table 1.2: Sources for the Tupinambá language
sentences and words, some of which offer unique attestations.

The best known passage of his book is found in chapter XXIX (given below), where he describes the killing of the prisoner who will be eaten ${ }^{59}$ :

> 'When all those [guests] who come from outside have now gathered together, the chief of the hut bids them welcome and says: Now come and help to eat your enemy. The day before they begin to drink, they tie the cord Mussurana ${ }^{T 01}$ about the captives neck; on this day, they also paint the club called Iwera Pemme [Ibira-pema] ${ }^{T 110}$ with which they want to kill him.' (Staden 200), $396-397)$.

He provides not only important information on cultural aspects of the people, as in the quoted passage, but also many linguistic attestations, such as the following passage from chapter XX:
(6) Ne , emojeta netupã $\operatorname{tok}^{\mathrm{w}} \mathrm{a} \beta \mathrm{e}$ amanusu

Ne e-moneta ne= $\varnothing$-tupã t-o-k ${ }^{\mathrm{w}}$ a $\beta \mathrm{e}$ aman-usu- $\varnothing$
you 2SG.IMP-talk 2SG=R1-God HORT-3-pass rain-big-REF

[^17]```
janemomarane?ima rese
jane= }\varnothing\mathrm{ -mo-maran-e?im-a r-ese
1PL.INCL=R R -CAUS-affliction-PRIV-REF R R -POSP
```

'You, pray to your God that the storm may pass for our relief (non-affliction).' (Staden, 59)

Staden (1557, 376-377) describes a ritual among the Tupinambá which involved the shaving of the head (see Métraux 1979, 100). This ritual is also found among the Wayampi (Campbell 1989) and the Sirionó (Holmberg 1950).

Staden's account, with about fifty words and some full sentences in TUP, is a precious source for the language and culture comparable only to those of Jean de Léry (De Léry 1972).

Following Staden's observations of the cultural practices of his captors, the work of the Franciscan Andre Thevet published in 1558 (Thevet 1558 ) mentions many aspects of Tupinambá culture, including myths of origin and an oratorical tirade by a Tupinambá chief who recounts his victories and acts of ritual cannibalism. Thevet's work is thus an important source of Tupinambá ethnography written by an acute observer who had the opportunity to live among the natives.

Léry had gone to Brazil, sent by Calvin to cooperate with Villegaignon in establishing a French colony at Guanabara Bay, Rio de Janeiro (see Hemming (I978)). The time he spent in Brazil is described in his Histoire d'un voyage faict en la terre du Brésil (De Léry) 1972), published in 1578. Léry's Histoire is not only a description of Brazil and its history, but an important ethnographic source when it comes to the Tupinambá and their language (see Gaffarel 1877, 5).

In chapter twenty of his Histoire, Léry offers an imaginary dialogue (altogether containing 212 utterances $)^{42}$, in Tupinambá between a native and a Frenchman, which is sometimes interrupted by remarks of linguistic or moral character. Léry's register of TUP includes not only grammatical notes regarding pronouns and verbs, names of fauna and

[^18]flora items, and cultural objects, but also examples taken from conversations as part of daily life.

During his years (1577-1587) as the head of the Jesuit order in Brazil, José de Anchieta wrote two theater plays: Auto de São Lourenço in Spanish, Portuguese, and Tupinambá, and Na Aldeia de Guaraparim in Tupinambá (Anchieta 2006). These were intended to be used as catechisms by the natives and the colonists. Both plays are wellsprings of valuable information on TUP culture. Anchieta wrote these plays in verses, with rhymes, as exemplified in ( (ل) with each verse of the stanza glossed separately:
(7) a. Ikawĩwasupipo?
i-kawi-wasu=pe ipo
$\mathrm{R}_{2}$-beer-big=Q DEM
'Does he in fact have a lot of beer (?)' (AT, 62: 698)
b. Seramũja Jawaruna?
fe=r-amũj-a Jawar-un-a?
1SG=R1-grandfather-REF jaguar-black-REF
'My grandfather Black-Jaguar?' (AT, 62: 699)
c. Ene?ĩ! Tasaßeipo!
ene?í t-a-s-aßeipor!
INTJ HORT-1SG-get.drunk
‘Aha, may I get drunk!’ (AT, 62: 700)
d. Erĩ, awjete pako, ajewak wijemouna
erí awjete pako a-je-wak wi-je-mo-un-a
INTJ ADV PRCL 1SG-RFLX-embellish 1SG CORF-RFLX-CAUS-black-GER
'Ah, I shall certainly adorn myself, painting myself black.' (AT, 62: 701-702)

In the above verses, the devil talks about beer consumed during the anthropophagic ritual of killing a prisoner, about the painting of ones body with Genipa americana, likewise on the occasion of the ritual killing of a prisoner, and even provides us with a proper name. While attestations like this are very rare, they permeate all the plays.

Anchieta's grammar (Anchieta 1595), published in 1595, clearly hints at a thorough reflection on how to present the content, since his description is concise and objective but nonetheless dense. He devotes fifteen pages to phonetics, provides detailed treatment of con-
structions and notes on the word order variation. Anchieta also wrote catechisms Anchieta 1618a,b) and poems (Anchieta 1997).

Another Jesuitic text attesting the Língua Brasílica appeared in 1607. Some Christian prayers, occupying three and a half pages, appear in the Rituale seu manuale peruanum (de Orél607, 415-418). The prayers contained in the Rituale are already similar to those in Araújo (1618b), who had to reconsider the translations of some Christian concepts which turned out to be somewhat artificial - and apparently difficult to understand for the natives. Many of these were substituted by Portuguese words (compare the Pater noster version in Thevet and in Araújo given in Lee 2005, 136).

In 1614, the French Franciscan Claude d'Abbeville, who worked as a missionary with the Tupinamba in Maranhao, published Histoire de la mission des pères Capucins en l'isle de Maragnan et terres circonvoisines (d'Abbeville 1614). One year later, in 1615, the Franciscan Yves d'Evreux published his Voyage au nord du Brésil (1615) (d’Evreux 2014). Both were part of a French Catholic mission to the Tupinambá on the Maranhão island in the mouth of the Amazon, and each described different groups of the Tupinambá after having acquired some knowledge of their language. Léry's and Evreux's decriptions, along with those by Abbeville and Staden, are the most important ethnographic and lexical sources about the Tupinambá, especially their religion (see e.g. MacCormack 1999, 115116).

The works of the Frenchman play an important role as they provide unique information about the culture of the Tupinambá, which often complement knowledge from Jesuitic texts. In Anchieta ( $1618 \mathrm{~b}, 83$ ), the priest asks a native if (s)he believed in the dance of Wajup $^{j}$ a:
(8) Ereroßiáripe paje porapiti moRayaPußa, jekaraimojaya, Ere-ero $\beta$ iár=pe paje- $\varnothing$ poro-apiti moPaŋaPu $\beta$-a jekaraimojaŋ-a, 2SG-believe=Q shaman-REF ANTIP-kill pretend-GER spell- $\varnothing$ morayiwana pitaŋjeReŋa, Wajup ${ }^{j}$ a moraseja, maraka poraseja, morangiwan-a $\varnothing$-pitang-je?eŋ-a, Wajup ${ }^{j}$ a m.oraseja- $\varnothing$, maraka- $\varnothing$ porasej-a omen-REF $\quad \mathrm{R}_{1}$-child-speech-REF Wajupiá $\mathrm{R}_{3}$-dance- $\varnothing$ rattle-REF dance-REF
mosawsu $\beta$ a?
mosawsu $\beta$-a
dream-REF
'Do you believe in the shaman pretending to kill people, mysticism, children's omen,
Wajupia dance, rattle dance, and dreams?' (DC II, 83)

Nothing about this entity or place referred to as Wajupja is known through the Jesuits, in spite of Anchieta's register. It is d'Abbeville $([614,323)$ who talks about it as the place where the souls of the dead go after the death of the body. It is located beyond the mountains, inhabited by their ancestors ${ }^{[3]}$. In ['Evreux (2014, 281), Wajupja are evil spirits or devils.

The catechism by the Jesuit Antonio de Araújo was published in $1618^{44]}$, before its publication was requested in 1592. It contains, in the initial pages, four short poems composed by another Jesuit, Antonio Valente (see Ayrosa 1941). Araújo's Catecismo is precious because it contains the longest sentences known in the language. A new edition came out in 1686 which, as indicated in its prologue, was published because some of the vocabulary in the 1618 edition had become obsolete, and because subtle changes in the doctrine had to be undertaken (see Araújo 1618a). It also contains a few pages listing kinship terminology (Araújo 1618b, 113v-117). Araújo's work can be seen as part of the standardization process of the language ${ }^{45}$. Araújo's Catecismo is linguistically the most important text in TUP because of the many long sentences it contains.

In order to provide a more practical and straightforward description of the language that would allow for faster learning, since Anchieta's description was considered difficult, the Arte da Língua Brasílica by Luis Figueira was published in 1621, with a fourth edition in (Figueira 1687). The author 'sought out rural Indians and great missionary linguists born

[^19]and raised among the Indians to consult' for his grammar (Lee 2005, 138). Figueira's Arte was intended to and probably did replace Anchieta's as a learning manual.

A manuscript from $1621^{46}$ containing the Vocabulário na língua brasilica was first published in 1938 (amonymous 1938) and subsequently in an augmented version in AnOnymous (1952a). This text of unknown authorship is noteworthy not only due to its length, unique words, and many (short) sentences exemplifying their use, but also because, although it was copied in São Paulo, its lexemes are those of the northern variety.

The last texts in the Língua Brasílica is the Compêndio da Doutrina Christã na Língua Portuguesa e Brasílica by Bettendortf, published in 1681 (Bettendortf 1681). Although the language of these texts clearly underwent changes in comparison to the language of Anchieta - since it lacks some of the constructions and particles described in the work of Anchieta - they may be considered part of the corpus. The language of Bettendorff's catechism is morphologically and syntactically less complex than the language of previous texts. In this work, I do not discuss examples from Bettendortt (168I).

It is known that the natives also produced texts (see Lee 2005, 147-151), but only six letters written in 1645 by Tupinambás from Paraíba have survived. Only two of these letters had been transcribed, translated, and published before 2022, see e.g. Sampaio (1906); Souto Maion (1912); Cerno and Obermeier (2013); Monserrat et al. (2020). In October 2022, all six letters were published, transcribed and translated in Navarro (2022).

If the goal of the standardization process was to 'render closely-related Tupi-Guarani speech forms considered "the general language of the coast," into one uniform language' (Lee 2005, 127), it was a successful endeavor, as far as one can tell from the texts from Anchieta to Araújo.

The amount of work devoted exclusively to TUP is modest. Besides two grammars of pedagogical character, Barbosa (1956) and de Almeida Navarro (2004), there is no grammar adequate for typological research.

Barbosa's grammar has many interesting insights, but one of its drawbacks is the

[^20]many made-up, non-attested examples. The same problem is found in the grammar by de Almeida Navarro (2004). Neither grammar take the phonological system into account, confusing phones, phonemes, and graphemes. It is much more reasonable for a description of a dead language to contain exclusively attested examples. Barbosa (1956) is linguistically a better resource, especially in the treatment of syntax.

Aryon Rodrigues is the scholar who most prolifically wrote on Tupinambá. He published many articles describing aspects of Tupinambá grammar, mainly morphology, e.g., Rodrigues (1951a, 1952, 1953, 1996a, 1999a, 2004, 2009, 2010b).

Very important for the study of TUP are descriptions of other TG languages and comparative work within the TG family. While a comprehensive list of all the important contributions would be out of place here, one author, Wolf Dietrich, deserves special mention due to the quality and extent of his contributions, out of which the following deserve mention: Dietrich (1986, 1990b, 1994, 2000, 2001, 2006, 2009, 2014, 2017a, c, ద, 2023).

For other TG languages, Table $\mathbb{[ . 3}$ shows what I consider to be the descriptions of TG languages (although the list is non-exhaustive) which are most important for the study of TUP, because they allow for a diachronic overview of aspects of TG languages.

| Language | Reference |
| :---: | :---: |
| Araweté | Solano (2010) |
| Avá Canoeiro | Borges et al. (2006), Silva (2020) |
| Chiriguano | Dietrich (1986) |
| Guajá | Magalhães (2010) |
| Guaraní | Estigarribia (2020) |
| Ka'apor | Kakumasu et al. (1986), Correa da Silva (1997) |
| Kamajurá | Sekil (1990), 2000) |
| Kokama | Vallejos (2016) |
| Nheengatu | Cruz (2011) |
| Mbyá | Dooley (2015) |
| Old Guaraní | Montoya (1876); Restivo (1724) |
| Omagua | Michael and O'Hagan (2016) |
| Tapiete | González Vergara (2006) |
| Tekó | Rose (2011) |
| Wayampi | Grenand (1980); Jensen (1990b); Copin (2012) |
| Yuki | Villafañe (2004) |

Table 1.3: Some references to descriptions of TG languages

Additionally, it is important to mention the chapter on Tupí-Guaraní by tensen (11998a), and the more recent overview of Tupían languages in Rodrigues (IV99b), Jensen (1999), and Rodrigues and Cabral (2012).

## Phonology

Tupinambá phonology was first described by Rodrigues (1958b), who relied not only on the first sources, but also took into account the native languages of the authors of these sources in order to better grasp the phonology of TUP. The native language of an author is expected to reflect his/her orthography or transcription of TUP. By examining words as supplied by Portuguese, French, and German authors, Rodrigues was able to infer phenomena that would have remained otherwise unknown. Decades after Rodrigues' work, descriptions of other TG languages became available, which allowed for more solid tentative reconstructions of Proto-Tupi-Guaraní (Rodrigues 1958b; Jensen 1984, 1999; Rodrigues and Cabral 2012; Meira and Drude 2015) These reconstructions (Rodrigues and Dietrich 1997; Schleicher 1998; Mello et al. 2000; Meira and Drude 2015) and descriptions of other TG languages, have contributed to the understanding of TUP phonology (Jensen 1984).

Most of the TUP texts were written by Portuguese speakers with little variation among them, due to Jesuit standardization. If more variation were to be found, one would be able to inquire what these differences could reveal. While Figueira (1687) is almost tacit regarding the phonology of the language, Anchieta (1595) offers some information regarding variation in pronunciation. ${ }^{[1]}$ Araújo (1618b, 1-3) in the beginning of his catechism also provides some notes on pronunciation when presenting his orthography, but he is silent

[^21]regarding variation.

Reconstructing the phonology of TUP is a difficult task since one must rely exclusively on documents from the fifteenth and sixteenth century, and on descriptions of other TG languages. An attempt at reconstructing TUP phonology is beyond the scope of this chapter and of this work, but nonetheless, I do think that the orthography here proposed, based on phonology, has advantages from a linguistic standpoint because it offers a more coherent view of the language's phonological system; but it will, at first, look uncommon to those who are familiar with TUP texts. One should not be surprised by eventual incoherencies. This chapter, beyond the presentation of the phonology, intends to facilitate the reading of the words and sentences in the pages that will follow.

### 2.1 Segmental phonology

The phonology of Tupinambá consists of fifteen consonants and six oral vowels with nasal counterparts, a small and an average size inventory respectively according to (Maddieson 2013a) and (Maddieson 2013b). Consonant and vowel phonemes are given in Tables 2.1] and 2.2:

| Consonants | Bilabial | Alveolar | Palatal | Velar | Glottal |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Voiceless stops | $\mathrm{p} \mathrm{p}^{\mathrm{w}} \mathrm{p}^{\mathrm{j}}$ | t |  | $\mathrm{k} \mathrm{k}^{\mathrm{w}}$ | $?$ |
| Fricatives | $\beta$ | s |  |  |  |
| Nasals | m | n |  | y |  |
| Flap |  | r |  |  |  |
| Approximants | w |  | j |  |  |

Table 2.1: Tupinambá consonant phonemes

|  | Front |  | Central |  | Back |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | oral | nasal | oral | nasal | oral | nasal |
| High | i | $\tilde{\mathrm{i}}$ | $\dot{\mathrm{i}}$ | $\tilde{\mathrm{i}}$ | u | $\tilde{\mathrm{u}}$ |
| Mid | e | $\tilde{\mathrm{e}}$ |  |  | o | $\tilde{\mathrm{o}}$ |
| Low |  |  | a | $\tilde{\mathrm{a}}$ |  |  |

Table 2.2: Tupinambá vocalic phonemes

The stress mostly falls on the last syllable with some exceptions described in Section 2.3. The basic syllable pattern is $\left(\mathrm{C}_{1}\right) \mathrm{V}\left(\mathrm{C}_{2}\right)$. The following sections introduce TUP phonology in a more detailed manner.

### 2.1.1 Consonants

There are fifteen consonant phonemes in TUP, as shown in Table 2.1. The glottal stop is included as a phoneme in this work, because minimal pairs seem to be attested, in spite of its absence in Rodrigues (1958b), who does not mention it at all, but includes it in many of his subsequent works (ex. Rodrigues 1996a, 2013).

The consonant [ h ] has not been included in the phonemic inventory. It is attested only in the items given in Table 2.3:

| Word | Word class | Example/Meaning | Source |
| :--- | :---: | :---: | :---: |
| haj | interjection | 'Oh' (expressing pity) | FA, 138 |
| he |  | 'Eh...' | FA, 138; Léry, 344 |
| hewe | interjection (of man) | Eẽ hewe! 'Oh, yes' | VLB, II, 117 |
| hewi | interjection (of woman) | Eẽ hewi! 'Oh, yes' | VLB, II, 54, 117 |
| hẽhẽ | particle | 'yes' | FA, 127 |

Table 2.3: Words with [h]

Since the phonemic consonants are established based on contrasts Ladefoged and Maddieson 1996, 2), we proceed to present the most relevant oppositions for the consonant phonemes through minimal or near minimal pairs .
(9) /p/ vs. $/ \beta /$
/pe/ 'path' / $\beta \mathrm{e} /$ 'also'
/ipiz/ 'beginning' /i $\beta \dot{\mathfrak{i}} /$ 'earth'
(10)
/p/ vs. /m/
/pan/ 'sideslip' /man/ 'bundle'
/apo/ 'root' /amõ/ 'someone'
(11) $/ \mathrm{p} / \mathrm{vs} . / \mathrm{R}^{[\square}$

| /pok/ | 'pop' | /Rok/ | 'cut' |
| :--- | :--- | :--- | :--- |
| /ape/ | 'shell' | /are/ | 'this' |

(12) $/ \mathrm{p} / \mathrm{vs} . / \mathrm{p}^{\mathrm{j}}$ /]
/pa/ 'yes’ /pia/ 'deviate’
/epak/ 'wake up! (imp)' /ep ${ }^{\text {jak/ }}$ 'see'
(13) $/ \mathrm{p} / \mathrm{vs} . / \mathrm{p}^{\mathrm{w} / \text { / }}$
/pan/ ‘wash’ /pwã/ ‘finger’
(14) $/ \beta / \mathrm{vs} . / \mathrm{m} /$
/ßoja/ 'servant, disciple' /moja/ 'snake'
/saßa/ 'his feather(s) /sama/ 'rope’
(15) $/ \beta /$ vs. $/ \mathrm{w} /$

| / $\mathrm{Be} /$ | 'also' | /we/ | 'vocative marker' |
| :--- | :--- | :--- | :--- |
| /a $\beta \mathrm{a}$ / | 'person' | /awa/ | 'bumpiness' |

(16) /m/ vs. /w/

| /mã/ | 'ah (intj.)' | /wã/ | 'already' |
| :--- | :--- | :--- | :--- |
| /aman/ | 'rain' | /awan/ | 'bracelet' |

(17) /t/ vs. /s/
/tete/ 'human body' /sete/ 'his body'
/pita/ 'heel' /pisa/ 'fishnet'

[^22](18) /t/ vs. /r/

| /ti/ | 'oh (interjection)' | /ri/ | 'because' |
| :--- | :--- | :--- | :--- |
| /arara/ | 'macaw' | /atara/ | 'hiker' |

(19) /t/ vs. /n/
/tupã/ 'thunder' /nupã/ 'hit'
/inĩ/ 'hammock' /itĩ/ 'his nose'
(20) /n/ vs. /r/

| /ne/ | 'future marker' | /re/ | 'after' |
| :--- | :--- | :--- | :--- |
| /manaka/ | 'Brunfelsia hopeana Benth' | /maraka/ | 'rattle' |

(21) /k/ vs. $/ \mathrm{y} /$

| /Raka/ | 'horn' | /Raya/ | 'soul' |
| :--- | :--- | :--- | :--- |
| /puka/ | 'heavy', | /puja/ | 'swelling' |
| /pak/ | 'awaken' | /mopapay/ | 'do something slovenly' |

(22) /k/ vs. /?/
/kaß/ 'fat' /Raß/ 'cut open'
/ake/ 'this' /aRe/ 'this'
(23) $/ \mathrm{k} /$ vs. $/ \mathrm{k}^{\mathrm{W}} /$
/ka/ 'break' /kwa 'bay'
/ka $\beta /$ 'fat' $/ \mathrm{k}^{\mathrm{w}} \mathrm{a} \beta /$ 'pass'
(24) /n/ vs. / $\mathrm{y} /$
/men/ 'husband' /je?ey/ 'speak'
(25) $/ \mathrm{m} / \mathrm{vs} . / \mathrm{n} /$

```
/mã/ 'oh' /nã/ 'thus'
```

(26) /w/ vs. /j/

```
/wara/ 'eater' /jara/ 'owner'
```


### 2.1.2 Phonetic realizations and phonological processes

The phonemic consonants presented in Table 2.11 have different phonetic realizations with predictable distributions. These are summarized below:

$$
\begin{aligned}
& / \mathrm{p} / \quad \rightarrow \quad[\mathrm{p}],\left[{ }^{[\mathrm{m}} \mathrm{b}\right] \\
& / \mathrm{p}^{\mathrm{j}} / \rightarrow \quad\left[\mathrm{p}^{\mathrm{j}}\right] \\
& / \mathrm{p}^{\mathrm{w}} / \rightarrow \quad\left[\mathrm{p}^{\mathrm{w}}\right] \\
& \mathrm{t} / \mathrm{L} \quad \rightarrow \quad[\mathrm{t}],\left[{ }^{[\mathrm{d}} \mathrm{d}\right] \\
& \mathrm{k} / \mathrm{h} \quad \mathrm{k}],[\mathrm{n}] \\
& / \mathrm{k}^{\mathrm{w}} / \quad \rightarrow \quad\left[\mathrm{k}^{\mathrm{w}}\right] \\
& \text { /3/ } \rightarrow \quad[\mathrm{P}] \\
& / \beta / \quad \rightarrow \quad[\beta],\left[p^{\prime}\right] \\
& / \mathrm{s} / \mathrm{C} \quad[\mathrm{~s}],[\mathrm{S}] \\
& / \mathrm{m} / \rightarrow[\mathrm{m}],\left[{ }^{\mathrm{m}} \mathrm{~b}\right] \\
& / \mathrm{n} / \quad \rightarrow \quad[\mathrm{n}],\left[{ }^{\mathrm{n}} \mathrm{~d}\right] \\
& / \mathrm{g} / \quad \rightarrow \quad[\mathrm{n}],[\mathrm{ng}] \\
& \mathrm{lr} / \quad \rightarrow \quad[\mathrm{r}],\left[\mathrm{t} \mathrm{t}^{\prime}\right] \\
& \text { /j/ } \rightarrow \quad[\mathrm{j}],[\mathrm{n}],\left[\mathrm{d}_{3}\right] \\
& / \mathrm{w} / \rightarrow[\mathrm{w}]
\end{aligned}
$$

In what follows, the most common distributions of consonant realizations are described along with phonological processes.

### 2.1.2.1 Stops

The voiceless bilabial stop /p/ only occurs in initial and medial position realized as $[\mathrm{p}]$ or $\left[{ }^{\mathrm{m}} \mathrm{b}\right]$. Similar to $/ \mathrm{p} /, / \mathrm{p}^{\mathrm{j}} /$, and $/ \mathrm{p}^{\mathrm{w}} /$ occur in syllable-initial position. The phoneme $/ \mathrm{t} /$ occurs in both initial and medial position. As for the voiceless velar stop $/ \mathrm{k} /$, it occurs in all positions, while the labio-velar $/ \mathrm{k}^{\mathrm{w}} /$ occurs only syllable-initially. The glottal stop seems to occur in root-initial and root-medial position, always followed by a stressed vowel. ${ }^{[1]}$

There are no voiced counterparts of the voiceless stops $/ \mathrm{p} /, / \mathrm{p}^{\mathrm{j}} /, / \mathrm{p}^{\mathrm{w}} /, / \mathrm{t} /, / \mathrm{k} /$, and $/ \mathrm{k}^{\mathrm{w}} /$. However, when preceded by a nasal vowel, the voiceless consonants $/ \mathrm{p} /$, /t/, and $/ \mathrm{k} /$ are nasalized whilst maintaining their place of articulation, as in Example (27).
$/ \mathrm{p}, \mathrm{t}, \mathrm{k} / \rightarrow\left[{ }^{\mathrm{m}} \mathrm{b},{ }^{\mathrm{n}} \mathrm{d}, \mathrm{n}\right] / \tilde{\mathrm{V}}+_{-}$
a. /jũ/ + /piteripe/ $\rightarrow$ [nũ. ${ }^{\text {m}}$ bi..te.ri.'pe] 'in the middle of the field'
b. /emi/ + /tipirõ/ $\rightarrow$ [ẽ.mĩ. ${ }^{\text {n }}$ di.pi.'rõ] 'stew' (Arte, 13v)
c. $/ \mathrm{kujã} /+/ \mathrm{katu} / \rightarrow \quad[\mathrm{ku} . \mathrm{\jmath a} . \mathrm{ya}$.'tu] 'good woman' (Poemas, 86)

An exception to the above rule seems to occur, for instance in the examples shown in (28). This could be related to the orthography of the original sources, or to some phonological rule that can not be predicted from these sources.
(28) a. /kunumĩi $+/$ kane?õ/ $\rightarrow$ [ku.nu.mĩ.ka.ne.'?õ] 'tired boy'
b. /kujã/ $+/$ piatã/ $\rightarrow$ [ku.nã.pi.a.'tã] 'courageous woman'
c. $/ \mathrm{kaw} \tilde{\mathrm{i}} /+/ \mathrm{tata} / \rightarrow \quad[\mathrm{ka} . \mathrm{wi} . t a . \operatorname{ta}] \quad$ 'strong spirit (beverage)'

### 2.1.2.2 Fricatives

The voiceless bilabial fricative $/ \beta /$ is found in word-initial position, albeit infrequently. It is more common in root-medial position. The bilabial stops encountered in final position, $[\mathrm{b}]$ and $\left[p^{\imath}\right]$, are allophones of $/ \beta /$, as shown in (29):

[^23](29) $/ \beta / \rightarrow[b] \sim[p `] / \_\#$
a. $\quad / \operatorname{seru} \beta / \rightarrow[$ e. 'rub $] \sim\left[\right.$ e.'rup $\left.{ }^{\text { }}\right]$ 'oh my father'
b. /kuwaß/ $\rightarrow$ [ku.'wab] $\sim\left[k^{\prime}\right.$ ' 'wap' $\left.^{\prime}\right]$ 'know'
c. $/$ so $\beta / \rightarrow[$ 'sob $] \sim\left[\right.$ sop $\left.^{`}\right]$ 'he has leaves'

The reason why $[p]$ is here taken to be an allophone of $/ \beta /$ and not of $/ b /$ can be explained as follows: Anchieta (1595, 4) says that [b] is pronounced as it is in Spanish, i.e., $a u a([\mathrm{a} \beta \mathrm{a}])$ instead of $a b a([\mathrm{aba}])$. No other source provides information regarding the pronunciation, but the earliest sources do provide some clues regarding [p] and [b] in final position. French sources (De Léry 1972; d’Abbeville I614) have [p] almost exclusively in final position. In Staden (1557), there is alternation of [b] and [p] in final position, occurring even in different attestations of the same word. This allophonic process is also suggested by Rodrigues (1958b) (see also Rodrigues 1999a).

The alveolar fricative [s] occurs in initial and medial position, e.g., ['swi] 'from', [si'rik] 'slide, leak out', [e $\beta$ uru'su] 'big, large', [ja'suk] 'wash'. The allophone [s] never follows [i] or [i], where its allophone [ [] occurs instead:
(30) $/ \mathrm{s} / \rightarrow\left[\int\right] / \mathrm{i}, \dot{\mathrm{i}}_{-}$
a. /isí/ $\rightarrow$ [i.' $\lceil\mathbf{i}]$ 'his mother'.
b. /isupe/ $\rightarrow$ [i. ju. 'pe] 'in him'.
c. /papisuara/ $\rightarrow$ [pa.pi.' Jwa.rə] 'what is on the wrist'.

I have not found minimal pairs of [s] and [ []], except for a near minimal pair:

```
/posij/ 'heavy' /po.jiz 'ugly'
```

The post-alveolar fricative [J] is found word-initially apparently only in onomatopoeic words or in words of foreign origin (e.g. ex.B2a,b). Word initially it is found as reduced form of /ise/ 'I (e.g. ex. 32 c , d,e), or in suffixes that only occur followed by /i/, e.g., swe 'non-indicative future' and so 'non-indicative future'. This process where the alveolar becomes post-alveolar, only occurs before the deletion of the high vowel.
(32) a. [Jo.ro.'ro] 'tinamou (Family tinamidea)'
b. [fe.ru.'ru] 'type of mollusk'
c. $[\mathrm{je} . ' \mathrm{Be}]$ 'me (dative)'
d. [fe.' $\beta \mathrm{oo}$ ], 'me (dative)'
e. [fe] 'my'

### 2.1.2.3 Nasals

The bilabial nasal $/ \mathrm{m} /$ occurs in initial, medial, and final position. It has two phonetic realizations $[\mathrm{m}]$ and $\left[{ }^{\mathrm{m}} \mathrm{b}\right]$. The phone $[\mathrm{mb}]$ is restricted to syllable-initial position and oral environments (33] and [34), while [m] is found in all other contexts (37). As illustrated by the examples below, nasality is triggered by a nasal vowel or a nasal consonant regressively. In (34a), the [o] is nasalized due to the regressive spread by [ ${ }^{\mathrm{m} \mathrm{b}}$ ]. Otherwise, one would expect [ ${ }^{m}$ bo ${ }^{m}$ be'Ru], which is not the case.

$$
\begin{equation*}
/ \mathrm{m} / \rightarrow\left[{ }^{\mathrm{m}} \mathrm{~b}\right] / \#_{-} \mathrm{V} \tag{33}
\end{equation*}
$$

a. /mite/ $\rightarrow$ [mbi.'te] 'still'
b. /mewe/ $\rightarrow$ [mbe.'we] 'slow(ly)'
c. /maRe/ $\rightarrow$ [mba.'Re] 'thing'
(34) $/ \mathrm{m} / \rightarrow\left[{ }^{\mathrm{m}} \mathrm{b}\right] / \mathrm{V} \_\mathrm{V}$
a. $/ \mathrm{mome} \mathrm{Pu} / \rightarrow$ [mõ.m ${ }^{\text {m }}$ be.'Ru] 'tell, accuse, confess'
b. /nami/ $\rightarrow$ [nã.'mbi] 'ear'
c. /pema/ $\rightarrow$ ['pẽ. $\left.{ }^{\text {mba }} \mathrm{b}\right]$ 'angle'
d. /kami/ $\rightarrow$ [kã.' ${ }^{\prime}$ bi] 'milk'
$/ \mathrm{m} / \rightarrow[\mathrm{m}] / \$ \_\tilde{V}$
a. /manõ/ $\rightarrow$ [mã.'nõ] 'die'回
b. /marẽ/ $\rightarrow$ [mã.' 'eã] ‘look at'.

[^24]c. /memuã/ $\rightarrow$ [mẽ.'mũ.ã] 'evil act'.
d. /koPẽma/ $\rightarrow$ [kõ.'Rẽ.mã] 'morning'.

The alveolar nasal $/ \mathrm{n} /$ occurs in initial, medial, and final position. Parallel to $/ \mathrm{m} /$, it has two phonetic realizations [ n ] and [ ${ }^{\mathrm{n}} \mathrm{d}$ ]. The phone [ ${ }^{\mathrm{n}} \mathrm{d}$ ] is restricted to syllable initial position and oral environments (36) and (37), while [ $n$ ] is found in all other contexts (38). As illustrated by the examples below, nasality is triggered by a nasal vowel or a nasal consonant regressively.
(36) $/ \mathrm{n} / \rightarrow\left[{ }^{\mathrm{n}} \mathrm{d}\right] /$ \#_V
a. /ne/ $\rightarrow\left[^{\text {'n }} \mathrm{de}\right]$ 'your'
b. /na/ $\rightarrow$ ['n da] 'negative particle'
c. $/ \mathrm{ni} \beta \mathrm{e} / \rightarrow\left[{ }^{\mathrm{n}} \mathrm{di} .{ }^{\prime}\right.$ ' $\left.\beta \mathrm{e}\right]$ 'with'
(37) $/ \mathrm{n} / \rightarrow\left[{ }^{\mathrm{n}} \mathrm{d}\right] / \$ \_\mathrm{V}$
a. /eníl $\rightarrow\left[\mathrm{e} .{ }^{\prime \mathrm{n}} \mathrm{di}\right]$ 'flame'
b. /mena/ $\rightarrow$ [me. $\left.{ }^{\text {n }} \mathrm{da}\right]$ 'marry'
c. /anira/ $\rightarrow$ a. ${ }^{\mathrm{n}} \mathrm{di}$. 'ra] 'bat'
(38) $/ \mathrm{n} / \rightarrow[\mathrm{n}] / \tilde{V}_{-}$
a. /marakanã/ $\rightarrow$ [ma.ra.kã.'nã] 'bird sp.'
b. /aman/ $\rightarrow$ a.'mãn] 'surround'
c. /marana/ $\rightarrow$ [ma.'rã.nə] 'war'

The nasal velar $/ \mathrm{y} /$ is realized as $[\mathrm{y}]$ in syllable final position as in (39), and as $\left[{ }^{\mathrm{y}} \mathrm{g}\right.$ ] syllable-initially, as in (40). ${ }^{[7}$
(39) a. /kaŋweríi/ $\rightarrow$ [kãy.we.'rĩ] 'bone (dim.)'
b. /aPaŋa $\beta \mathrm{a} / \rightarrow[$ a.Rãy.'a. $\beta \mathrm{az}]$ 'image, model'

[^25]c. /piray/ $\rightarrow$ [pi.'rãy] 'red'
(40) a. /ajãya/ $\rightarrow$ [a.'jã. ${ }^{\text {T }}$ gə] 'devil'
b. /posaŋa/ $\rightarrow$ [po.'sã. ${ }^{\text { }}$ gə] 'medicine'


### 2.1.2.4 Flaps

The flap /r/ occurs in initial, medial, and word-final position:
(41) a. [ra.'ko] 'actually'
b. [pi.'ra] 'fish'
c. [e.'kar] 'seek'

In final position, $/ \mathbf{r} /$ seems to occur in free variation with $[\mathrm{r}]$ or $[\mathrm{t}]$, most often with the unreleased [ $\left.\mathrm{t}{ }^{\prime}\right]$.
(42) $/ \mathrm{r} / \rightarrow[\mathrm{r}] \sim[\mathrm{t}] / / \_$
a. /taPir/ $\rightarrow$ [ra.' i ir$] \sim$ [ta.' ilt '] 'daughter of men'
b. lesaìir/ $\rightarrow$ [e.sa.'?ir] $\sim$ [e.sa.'?it'] 'pupil'

### 2.1.2.5 Approximants

The palatal approximant /j/ occurs in initial, medial, and final position. The phone [j] occurs in oral environments and is in free variation with [d3] in syllable-initial position (43). When preceded or followed by a nasal syllable, $/ \mathrm{j} /$ is realized as $[\mathrm{n}]$, as in (44).
(43) $/ \mathrm{j} / \rightarrow[\mathrm{j}] \sim\left[\mathrm{d}_{3}\right] / \$$
a. $/ \mathrm{ja} / \rightarrow[\mathrm{ja}] \sim[\mathrm{d} z \mathrm{a}]{ }^{\prime}$ 'as'
b. /akaju/ $\rightarrow$ [a.ka.'ju] $\sim[$ a.ka.'d3u] 'year'
(44) $/ \mathrm{j} / \rightarrow[\mathrm{n}] / \$_{[+ \text {nasal }}$ or $\$_{[+ \text {nasal }]}$
a. /jetiy/ $\rightarrow$ [nẽ.'tiị] 'fly species'
b. $/ \mathrm{j} \tilde{0} / \rightarrow[\mathrm{nõ}]$ 'only'
c. /jeran/ $\rightarrow$ [nẽ.'rãn] 'attack, get irritated'
d. /atõja/ $\rightarrow$ [a.'tõ.jnã] 'touch'
e. /manõja/ $\rightarrow$ [mã.'nõ.jñ] 'place'

The labial approximant /w/ occurs in word-initial, medial and final position, as shown below:
a. /waj/ $\rightarrow$ [waj] 'tail'
b. /kaw $\tilde{\mathrm{i}} / \rightarrow[\mathrm{ka}$. 'wĩ] 'manioc beer'
c. /jukaw/ $\rightarrow$ [ju.'kaw] 'kill (non focal)'

### 2.1.2.6 Morphophonological processes

There is one process involving glottal stop deletion at the morpheme boundary (in composition or suffixation), which is independent of the phonetic characteristics of the final consonant of the first element, e.g.:
(46) / / / $\rightarrow \varnothing /+_{-}$
a. $/$ pitan $/+/-$ Píi/ $\rightarrow$ [pi.tay. $\tilde{\mathrm{i}}] \quad$ 'baby (dim.)' (Poemas, 86)
b. /petim/ $+/ \mathrm{Pu} / \rightarrow \quad\left[\right.$ pe.ti. ${ }^{\text {.m }}$ bu] 'to smoke' (Teatro, 8)
c. /jukir/ $+/$ ìi/ $\rightarrow$ [ju.ki.'ri] 'salt water' (d'Abbeville, 306v)

Different consonants, with the exception of the glottal stop, may not co-occur across morpheme boundaries, in which case an epenthetic [i] or [i] is inserted.
$\varnothing \rightarrow[\mathrm{i}, \mathrm{i}] /\left[+\right.$ consonant $\left._{\mathrm{i}}\right]+_{-}\left[+\right.$consonant $\left._{\mathrm{j}}\right]$
a. $/ \mathrm{ok} /+/$-pe/ $\rightarrow$ [o.'ki.pe] 'in the house'
b. $/$ asep $^{\mathrm{j}} \mathrm{ak} /+/=$ ne/ $\rightarrow$ [a.se. $p^{\mathrm{j}}$ a.'kĩ.nẽ] 'I will see it'
c. /aja $\beta \mathrm{a} \beta /+/$-swer/ $\rightarrow$ [a.ja. $\beta$ a.' $\beta$ i.swer] 'I'm a runaway' $(\mathrm{VLB}, \mathrm{II}, 11)$
d. /oker/ $+/=$ ne/ $\rightarrow$ [o.'ke.ri.ne] 'he will sleep'
e. /ojeran/ $+/-\beta \mathrm{aPe} / \rightarrow$ [o.nẽ.rã.'ni. $\beta \mathrm{a} . \mathrm{Pe}$ ] 'the one who attacks'
f. /oimõjã̃/ $+/=$ pe/ $\rightarrow$ [oj.mo.'nã.ŋji.pe] 'did he do it?'

There is consonant deletion at the morpheme boundary when both surface stop consonants share the same place and manner of articulation.
(48) $\left.\quad \mathrm{C}_{[\text {stop }]} \rightarrow \varnothing / \mathrm{C}_{\left[\text {stop }_{\mathrm{i}}\right]}+{ }_{-} \mathrm{C}_{[\text {stop }}{ }_{\mathrm{i}}\right]$
a. $/ \mathrm{ta} \beta^{/ 8}+/$-pe/ $\rightarrow$ ['ta.pe] 'in the village'
b. $/$ ep $^{j} \mathrm{ak} /+/ \mathrm{katu} / \rightarrow$ [e. $p^{j}$ a.ka.'tu] 'see well, observe'

When followed or preceded by a nasal vowel at a morpheme boundary, $[\mathrm{r}]$ becomes [n]. ${ }^{\text {D. }}$
(49) /r/ $\rightarrow$ [n] / V $+{ }_{-}$or _V +
a. /tupã/ $+/$-ramo/ $\rightarrow$ [tu.pã.'nã.mo] 'as a God'
b. /ero- $/+/ \mathrm{jã} / \rightarrow$ e.nõ.'nãn] 'cause to run with oneself'

### 2.1.3 Vowels

Tupinambá has six oral and six nasal phonemic vowels, which are shown in Table 2.2. Minimal or near-minimal pairs are given below:

## Oral vowels

/i/ vs. /e/

| /supi/ | 'truly' | /supe/ | 'to' |
| :--- | :--- | :--- | :--- |
| /aPi/ | 'mother (vocative)' | /aPe/ | 'this' |

[^26](51) /i/ vs. /o/

| /ipo/ 'his hand' | /opo/ | 'his own hand' |
| :--- | :--- | :--- | :--- |
| /pira/ 'skin' | /pora/ | 'content' |

(52) /i/ vs. /u/
/uPi/ 'spear' /uPu/ 'cough'
/mina/ 'pointy thing' /muna/ 'spit'
(53) /i/ vs. /i/
/ita/ 'stone' /ita/ 'scaffold'
/pißa/ 'my son (voc.)' /pỉa/ 'liver'
(54) /e/ vs. /a/
/tete/ 'body of a person' /tata/ 'fire'
/merẽ/ 'give' /maRẽ/ 'look at'
(55) /e/ vs. /o/
/pe/ 'bark' /po/ 'hand'
/aPe/ 'actually' /aPo/ 'revile'
(56) /e/ vs. /u/
/pe/ 'bark' /pu/ 'noise'
/en/ 'spill’ /un/ 'black’
(57) /e/ vs. /ì/
/asem/ 'I go out' /asim/ 'I slip'
/ene/ 'you' /ení/ 'saliva'
(58) /o/ vs. /a/
/so $\beta \mathrm{a} /$ 'his leaves' /sa $\beta \mathrm{a}$ / 'its feathers'
/Ruaßo/ 'eating' /Ruaßa/ 'eating place/instrument/occasion'
(59) /o/ vs. /u/

| /so?o/ | 'his flesh' | /suPu/ | 'his bite' |
| :--- | :--- | :--- | :--- |
| /o $\beta /$ | 'leaf' | $/ \mathrm{u} \beta /$ | ' father' |

(60) /i/ vs. /a/
/pik/ 'quit, press' /pak/ 'wake'
/iti/ 'dirt' /ita/ 'column'
(61) /i/ vs. /o/
/i $\beta \mathrm{a} /$ 'fruit' /o $\beta \mathrm{a}$ / 'face'
/pik/ 'quit, press' /pok/ 'snap, crackle'
(62) /i/ vs. /u/
/pik/ 'quit, press' /puk/ 'rift'
/ìi/ 'water' /Ru/ 'ingest'

Nasal vowels
(63) /i/ vs. $/ \tilde{\mathrm{i}} /$
/aPi/ 'oh my brother (voc.)' /a? $\mathrm{i} /$ 'oh my mother (voc.)'
/ii/ 'be old' /ح $\tilde{\mathrm{i}}$ 'frustrative'
(64) /e/ vs. /ẽ/

$$
\begin{array}{llll}
\text { /ape/ } & \text { 'shell' } & \text { /apẽ/ } & \text { 'crook' } \\
\text { /Re/ } & \text { 'say' } & \text { /Rẽ/ } & \text { 'pour' }
\end{array}
$$

(65) /a/ vs. /ã/
/ita/ 'stone' /itã/ 'mussel shell'
/pißa/ 'oh my son (voc.)' /pißã/ 'skin disease’
(66) /o/ vs. /õ/
/ro/ 'blind' /rõ/ 'thus, then'
(67) /iz/ vs. $/ \tilde{\mathbf{i}} /$
/e $\mathrm{i} \mathrm{i} \mathrm{j} / \mathrm{c}$ 'crowd, multitude' /e? $\tilde{\mathrm{i}} \mathrm{j} /$ 'scratch'
(68) /u/ vs. /ũ/
/ju/ 'thorn' /jũ/ 'field'

### 2.1.4 Phonetic realizations and morphophonological processes

All TUP vowels occur in initial, medial, and final position. They become nasalized in nasal environments, as below:
(69) a. /anũ/ $\rightarrow$ [ã.'nũ] 'bird (sp.)'
b. /meRey/ $\rightarrow$ [mẽ.'Rẽy] 'give'
c. /pitun/ $\rightarrow$ [pí.'tũn] 'dark, night'
d. $/ \mathrm{in} \tilde{\mathrm{i}} / \rightarrow[\tilde{\mathrm{i}} . \mathrm{ni} \tilde{\mathrm{i}}]$ 'hammock'
e. /emonanĩ/ $\rightarrow$ [ẽ.mõ.'nã.nĩ] 'continuously'

### 2.2 Syllable structure

The syllable structure of Tupinambá is $(\mathrm{C}) \mathrm{V}(\mathrm{C})$, with the following possible types: V, CV, VC, CVC. All consonants occur in the onset $\left(C_{1}\right)$ except $/ \mathrm{y} /$. In the coda, $\left(\mathrm{C}_{2}\right)$ which does not allow fricatives ( $/ \beta /$ is phonetically realized as $[\mathrm{b}]$ in coda position) and glottal consonants, although as far as the glottal stop is concerned, this is no more than an assumption. The nucleus contains a single vowel and heavy syllables have a (C)VC structure (as in /tiy/ 'white').


$$
/ \mathrm{a}, \tilde{\mathrm{a}}, \mathrm{e}, \tilde{\mathrm{e}}, \mathrm{i}, \tilde{\mathrm{i}}, \mathrm{o}, \tilde{\mathrm{o}}, \mathrm{u}, \tilde{\mathrm{u}}, \dot{\mathrm{i}}, \tilde{\mathrm{i}} / / \beta, \mathrm{p}, \mathrm{k}, \mathrm{t}, \mathrm{~m}, \mathrm{n}, \mathrm{y}, \mathrm{r}, \mathrm{j}, \mathrm{w} /
$$

Figure 2.1: Syllable structure
(70) $\mathbf{V} /$ ã/ 'this'
$\mathbf{C V} / \mathrm{si} /$ 'mother'

VC /ok/ 'house'
CVC /pe $\beta /$ 'flat'

Sequences of two vowels are attested in TUP in all positions (initial, medial, and final). Due to the lack of native speaker intuitions, which have proven to be essential for the understanding of vocalic-like sequences within a syllable, it is impossible to predict vocalic sequences phonemically or to posit other rules by looking for phonetic cues. Another reason not to posit the presence of phonemic vocalic sequences is that whenever vowel clusters are found within a syllable, they are actually formed by the approximants $/ \mathrm{w} / \mathrm{or} / \mathrm{j} /$ and a vowel (II) or the vowel is assigned to a different syllable (IIC).
(71) a. /ãwa/ $\rightarrow$ ['ã.wa] 'that one.' (VLB, I, 109)
b. /awajmirí/ $\rightarrow$ [a.waj.mi.'rí] 'plant sp.' (Piso, II, 175)
c. /ae/ $\rightarrow$ [a.'e] 'emphatic particle' (VLB, II, 36)

### 2.3 Prosody

The stress is fixed, occurring on the last syllable ([22), but it might fall on the penultimate ([I3) or antipenultimate (IT4) under specific morphophonological conditions.
(72) a. [ka.'ruk] 'urine'
b. [ko.'Rem] 'afternoon'
c. [i.' fe ] ' I '
d. [ja.ka.'re] 'caiman'

As can be seen from the examples in ([23), the stress falls on the penultimate syllable of derived words, either through suffixation (a,b) or through cliticization (c) and composition (d,e).
a. $/ \mathrm{juka} /+/-\mathrm{sa} \beta \mathrm{a} / \rightarrow[\mathrm{ju} . \mathrm{ka}$. 'sa. $\beta \mathrm{a}]$ 'way of killing'
b. /peRa/ + /-pira/ $\rightarrow$ [pe.Ra.'pi.ra] 'the one who has been removed'
c. $/ \mathrm{a}-/+/ \mathrm{so} /+/=\mathrm{ne} / \rightarrow$ [a.'so.ne] 'I shall go'
d. /tata/ + /eni/ $\rightarrow$ [ta.ta.e.'ni] 'flame'
e. /ajuru/ $+/ \mathrm{ju} \beta / \rightarrow[$ a.ju.ru.'ju $\beta$ ] 'blond (lit. yellow parrot)'

Some examples of stress on the anti-penultimate syllable are given in ([74).
(74) a. $/ \mathrm{mono} /+/ \mathrm{reme} / \rightarrow[\mathrm{mo}$. 'ndo.re.me] 'send (irrealis)'
b. $/ \mathrm{si} /+/-\mathrm{ramo} / \rightarrow$ ['si.ra.mo] 'as a mother'
c. /owata/ $+/ \beta \mathrm{aie} / \rightarrow[$ o.wa.'ta. $\beta \mathrm{a} . \mathrm{Re}]$ 'the one who walks'

Contrastive stress can only be seen in morphologically derived words ([5]).
(75) a. $/ \mathrm{a} \beta /+/-\mathrm{a} / \rightarrow[\mathrm{a} . \beta \mathrm{a}]$ 'feather'
b. $/ \mathrm{a} \beta \mathrm{a} / \rightarrow\left[\mathrm{a}^{\prime} \beta \mathrm{a}\right]$ 'man'

## RRG

### 3.1 Introduction

This chapter offers an introductory, non-exhaustive overview of Role and Reference Grammar (RRG). Its sole purpose is to outline the theory in order to facilitate the reading of the subsequent chapters, thus making them more accessible. Some aspects of RRG presented in this chapter will receive more attention in the subsequent chapters.

RRG appeared in the 1970s as a framework for describing language structure departing from languages other than English, such as Lakhota, Tagalog, and Dyirbal ${ }^{\mathbb{W}}$. It attempts to provide a model of syntax applicable to all languages, accounting for the variation of typological parameters, such as the presence or absence of verb phrases (see Van Valin Ir 2005, 80-88), syntactic or morphological expression of predicate-argument structure, grammatical relations (see Van Valin $\operatorname{Ir}$ 2005, 89-94), and serial verb constructions or chaining constructions. RRG attempts to capture this diversity and explain the interaction of syntax, semantics, and pragmatics in different grammatical systems (Van Valin Jr and LaPolla 1997, 14-15, Van Valin Jr 2005, 1). ${ }^{\text {■ }}$ In line with functional approaches to language study (ButIer 2003b,a; Dik 1991; Givón 2001; Van Valin In 1991; Newmeyer 1991), RRG does not

[^27]consider language to be an infinite set of structural descriptions, but views it as a system of human communication (Foley and Van Valin Ji 1984, 7, Van Valin Jr and Lapolla I997, 11-15), thus attempting to characterize not only syntactic but also communicative competence. This characterization requires an analysis of the interaction between morphosyntactic form and communicative function (see Foley and Van Valin Jr [1984, 11-16). The emphasis in RRG has predominantly been on the exploration of language systems themselves from the perspective of their use in communication ${ }^{\text {® }}$, but as Bohnemeyer and Van Valin JI (2017, 144) observe, the typology of form-to-meaning mapping has also always been a theme in RRG research (see also Van Valin Jr 2009). Based on the classification of linguistic theories in lackendott (2002), RRG would fall into the parallel architecture theory type, in which syntax, semantics, and pragmatics are represented independently but interact directly with one another (see Jackendoff and Audring 2020, 5-9). RRG also takes a constructional approach, rejecting the principles-and-parameters approach (see Van Valin Jr| 2022).

While syntax is said to constitute a system in the structuralist ${ }^{\text {T }}$ sense (see Van Valin [10 [1993, 2), the autonomy of syntax is rejected since form is assumed to be motivated by function (see Van Valin Jr 2003). The fundamental role of function requires grammatical structure to be understood and explained with reference to its semantic and communicative functions (pragmatics). Syntax is not arbitrary, but relatively motivated by semantic, pragmatic and cognitive concerns (Van Valin In IT991, 9). These assumptions place RRG in the middle of a functionalist continuum between Systemic Functional Grammar (Halliday 1985; Halliday and Matthiessen $\mathbf{2 0 1 3}^{1013}$ and Cognitive Grammar (Langacker 11987$)^{6 / 6}$ (see Butler 2003b).

RRG looks at language structure from four perspectives: the surface forms, the underlying semantic structure, the modifying grammatical elements, and the pragmatic in-

[^28]formation structure. It offers mechanisms for discovering and describing how they interact with one another without referring to constituent structure or abstract levels such as Logical Form ${ }^{\boxed{D}}$ (see Van Valin Jr and LaPolla 1997, 317-319). This interaction is accounted for by typologically motivated principles which are captured by three main representations: syntactic (form of the utterance), semantic (meaning of the utterance), and information or focus structure (pragmatics). The linking algorithm, the core component of RRG, connects the syntactic and semantic representations with pragmatics playing a role in the linking process. A visual representation of the linking algorithm is given in Figure (3.1) (Van Valin.Jn [2005, 131).


Figure 3.1: The architecture of RRG

The linking between syntax and semantics is bi-directional (see Van Valin Jr and LaPolla [1997, chap.7, Van Valin Jr 2005, chap. 5) and models the production process, starting with the formulation of a message, mapping it onto the appropriate morphosyntactic form, and uttering it. It also models the comprehension process, with an analysis of the utterance followed by mapping it onto a representation of its meaning ${ }^{\mathbb{8}}$. Linking semantics to syntax begins in the lexicon, where a semantic representation is built. It takes a sentence as input, applies a syntactic parser and represents the morphosyntactic properties of this

[^29]sentence by the layered structure of the clause (LSC) (see Sections B.L.D and B.L.2). Explicit mapping rules link the syntactic representation to the semantic representation, providing an interpretation. Simple examples of the linking in both directions are explained below for a simple sentence based on $(\mathbb{1 6})^{9!}!^{0]}$
(76) Ojuka
o-i-juka
3-R2-kill
'She kills him.'

The semantics-to-syntax linking consists of five steps. Step one builds a semantic representation of the utterance from the logical structures associated with the lexical units (see Section [3.3). In step two, macroroles are assigned to the arguments of the predicator (see Section B.3.2). In the third step, the morphosyntactic encoding of the arguments is determined (Privileged Syntactic Argument (PSA), case markers, adpositions, agreement). In step four, the syntactic templates are selected from the syntactic inventory. Finally, in step five, the arguments are anchored to their position in the syntactic representation.

In the syntax-to-semantic linking, the parser outputs a syntactic structure (step one) ${ }^{m}$, and morphosyntactic forms (verb-forms, voice, etc.) are retrieved, the PSA is determined (step two). In the active voice, the actor is the PSA (the core initial reference phrase (RP)) $o$-. The logical structure (LS) of the predicate is retrieved from the lexicon and macroroles are assigned. The last step establishes that $o$ - is the actor and $i$ - the undergoer.

Language-specific features, i.e., grammatical constructions, are captured in RRG by constructional schemas (Van Valin In [2005, 131-132) ${ }^{\text {ne }}$. But because constructional schemas reference general principles, they not only capture cross-linguistic generalizations, but at the same time express language-particular properties of grammars (see JiménezBriones and Luzondo-Oyón 2013). Constructional schemas contain morphological, syn-

[^30]tactic, semantic, and pragmatic information, some as general principles and some as languagespecific constraints ${ }^{[1]}$

Table [.] below provides a constructional schema for TUP WH-questions.

| Construction | Tupinambá WH-question |
| :--- | :--- |
|  | Template(s): PrCS |
| Syntax: | PSA: None |
| Linking: WH-XP to PrCS |  |
| Memantics: | Default |
| Contains an open proposition with a variable $\alpha$, WH-XP $=\alpha$ |  |
| Pragmatics: | llocutionary force: interrogative <br> Focus structure: narrow focus on PrCS |

Table 3.1: Constructional schema for TUP WH-questions

The template for the pre-core slot (PrCS) mentioned in Table 3.1 is given in Figure B.2., and an example of a WH-question is given in ([I7), with its syntactic representation given in Figure B.3.


Figure 3.2: Syntactic templates for a TUP WH-question. The dashed line indicates the focus domain and the triangle marks the narrow focus
(77) MaPepe pesekar?
maRe=pe pe-s-ekar
thing=Q 2PL-R2-seek
‘What do you seek?' (Araújo, 54)

[^31]

Figure 3.3: WH-question with precore slot

Constructional schemas contain language-specific morphosyntactic features as well as semantic and pragmatic information of the given construction (see examples in Van Valin ITr 2005, 131-135, 148, 258, 265, 267). From Figure (3.1), it can be seen that discoursepragmatics runs parallel to the linking algorithm, indicating the interactive role of discoursepragmatics in both directions of the linking. The lexicon interacts with the semantic representation before the linking process takes place.

More recently, a series of extensions have been proposed for RRG (see e.g. Kailuweit (2018). Among these is a formalization of the theory, which can serve as a basis for computational implementations (Osswald and Kallmeyer 2018). A volume which is expected to be published in 2022 by Cambridge University Press will also contain many novelties regarding the theory and its applications.

The next sections introduce the main tools of RRG for investigating and describing the structure of a language. The syntactic representation is presented in Section [....], followed by the semantic representation in [3.3 and information structure in Section [3.3.

### 3.1.1 The syntactic representation: the layered structure of the clause (LSC)

RRG represents the hierarchical organization of sentences and clauses; that is, non-relational aspects of clause structure are represented through semantically motivated syntactic units, as shown in Table [3.2. The LSC is based on contrasts known to be found in all languages, namely the contrasts between expressions of semantic predicates, their arguments, and the modifiers of their projection (Van Valin Jn 1990, 1993; Van Valin Jr and LaPolla 1997).

These contrasts are a consequence of the nature of language as a system of communication, which requires predication and reference in order to talk about states of affairs in the world. The LSC also accounts for aspects of clause structure common to languages of different types, such as word order, flat syntax, and head marking (see Van Valin Jr and LaPolla 1997, 22). These principles are typologically grounded ${ }^{[\boxed{41}}$, thus accounting for cross-linguistic diversity. Divergent features should be represented by comparable structures whilst pointing out the differences and similarities between them.

| Semantic element(s) | Syntactic unit |
| :---: | :---: |
| Predicate | Nucleus |
| Predicate + arguments | Core |
| Predicate, arguments and non-arguments | Clause |

Table 3.2: Semantic units underlying the syntactic units of the layered structure of the clause

The syntactic organization in RRG is linear and layered, without underlying derivations or multiple representations. Its internal structure consists of the following layers: sentence, clause, core, and nucleus. The layers in this organization are represented as labeled trees, as displayed in Figure (3.4). As Osswald and Kallmeyer (2018, 359) observe, "trees provide the most natural way to analyze syntactic structures since they build on the basic relations of immediate dominance and linear precedence."


Figure 3.4: Simple constituent projection

The LSC has three independent but unified projections: the constituent, the operator,

[^32]and the focus projection. The constituent projection represents the syntactic categories, the operator projection represents grammatical categories called operators, and the focus projection represents the information structure. These are briefly discussed in the next sections.

### 3.1.2 The constituent projection

The nucleus (NUC), Core, and periphery (PERI) are the primary components of the LSC, which are semantically motivated and universal. The nucleus is the predicate, and since syntactic categories in RRG are non-endocentric (see Chapter (4), it is not connected to any particular lexical category (see Croft 2022a) and its head can be phrasal (see Everett 2008) or even an RP; the core contains the nucleus and its arguments, while the peripheries host non-arguments. The core periphery hosts, for example, non-argument adjuncts and temporal and locative modifiers . The core and its periphery make up the clause. All known human languages make a distinction between the core and the periphery, just like all languages distinguish between predicating and non-predicating elements as well as between arguments and non-arguments (adjuncts) (Van Valin Jr and LaPolla [1997; Van Valin Jr [2005). An LSC with core and clausal periphery is represented in Figure B.5. The peripheries are, following Osswald and Kallmeyer (2018), not separated nodes, as in e.g. Van Valin.Ir and LaPolla (1997); Van Valin .JIn (2005), but marked by a feature [PERI+].


Figure 3.5: LSC with periphery at the core-level

The non-universal components of the constituent projection are the pre-detached position (PrDP) and post-detached position (PoDP), and the PrCS and the post-core slot (PoCS), all of which are pragmatically motivated. The detached positions are for dislocated constituents, which are normally but not always separated from the main clause by an intonation break, or represented by a resumptive pronoun in the core. Detached units are outside the clause but within the sentence node. The precore and postcore slots are inside the clause. Unlike detached elements, units in the precore or postcore are not intonationally separated from the clause, and they are not represented by resumptive arguments in the core. They usually host focal elements. Example $[8]$ shows an element in the PrDP.
(78) $\left.\left.[\text { [ } \mathrm{My} \text { sister }]_{\text {Prdp }},[\text { [I have not seen her }]_{\text {core }}\right]_{\text {clause }}\right]_{\text {Sentence }}$

In languages like Tupinambá and English, with ex situ WH-questions, the PrCS becomes the position for the WH-words, as in (ITY) and its representation in [3.6.

'What do you seek here in my land?' (Teatro, 30)


Figure 3.6: PrCS with WH-word

The PoCS is found in languages in which WH-questions occur in a post-core position, e.g. in SOV languages such as Japanese. WH- and non-WH constituents can also occur in the PrCS and PoCS as focused or displaced constituents.

All the layers and constituents described above are summarized in Fig.


Figure 3.7: The Layered Structure of the Clause

As will be shown in Chapter [10, the central components of the LSC also turn out to be the three fundamental building blocks of complex sentences in language, because the construction of complex sentences involves the linking of these units: nucleus with nucleus, core with core, clause with clause, or sentence with sentence.

For head-marking languages ${ }^{[\boxed{ }]}$, there is an ECS (Van Valin In 2013) where independent lexical nominals, such as reference phrases coreferential with a bound argument index in the core, are located. In dependent-marking languages such as English, lexical nouns are the core arguments of the core, but in head-marking languages, core arguments may or may not be coreferential with an overt lexical RP. This is illustrated in (80), which is represented in Figure B.8. The arguments of the predicate are $o-$ and $-s-$. The RPs, Pedro and sword, are semantically related to the arguments but are not arguments themselves. Subscripts indicating coreference help to identify the arguments to which the RPs are semantically related (see Section 6.3).

Pedro itayapema osekij
Pedro $_{i}$ i-itayapem- $a_{j} \quad o_{i}-s_{j}$-ekij
Pedro $\mathrm{R}_{2}$-sword-REF 3-R2-pull
'Pedro pulled the sword.' (see Araújo, 54v)

Van Valin Jr (2013) highlights important differences between the ECS and the PrCS (see also the discussion in (Kihara 2017, 61-66)).

The building blocks of the syntactic representations are the syntactic templates,

[^33]

Figure 3.8: ECS with RPs coreferential with the bound argument indexes in the core
which are stored in the syntactic inventory. Figure (B.9) shows some examples of syntactic templates.


Figure 3.9: Some syntactic templates for English from Van Valin .Jr (2022, 42)

### 3.1.3 The operator projection

The operator projection hosts grammatical categories such as aspect, negation, tense, directionality, event quantification, status, tense, evidential, and illocutionary force. Initially, the constituent and operator projections were homomorphic mirror images of each other (see Figure (3.10). This projection is necessary because operators are subject to different ordering constraints from the predicates, arguments, and adjunct modifiers (see Foley and Van Valin In 1985, 233, Van Valin Jr and LaPolla 1997, 46-52 and Van Valin Jr 2005, 9-11). Furthermore, the operator projection permits an accurate expression of the scope of operators in complex sentences (see Van Valin In 2005, 213-219).

All the layers, with the exception of the sentential layer, have their own operators, and each layer may be modified by more than one operator at a time. Operators play an important role in the determination of clause linkage types, since clauses that share an operator constitute a special type of clause linkage specific to RRG called cosubordination (see Chapter (10)).

The scopes of an operator is an individual layer. The nucleus, for instance, is modified by aspect and directionals. Nuclear operators do not involve participants since they are outside of the nucleus. The core operators are negation, event quantification, and deontic modality. Epistemic modality, instead, is subsumed under status, a clausal operator together with the related notions of realis-irrealis. Tense modifies the clausal layer as well as evidentials, which are used to indicate the source of the information expressed by a speaker in a proposition. Some operators, such as negation, may be found in more than one layer. The combined schema for the constituent and operator projections is given in Fig. B.10 and summarized in Table 3.3.

|  | Aspect <br> Negation <br> Nirectionals (only those modifying orientation of action or <br> event without reference to participants) |
| :---: | :--- |
|  | Directionals (only those expressing orientation or motion of one <br> participant with reference to other participant or the speaker) |
| Core operators: | Event quantification <br> Modality (root modals, e.g., ability, permission, obligation) <br> Internal (narrow negation) negation |
| Clausal operators: | Status (epistemic modals, external negation) <br> Tense <br> Evidentials <br> Illocutionary force |

Table 3.3: Some of the most common operators and their respective levels in the LSC

Figure 3.10 shows the syntactic representation and the operator projection, whose separate representation was proposed by Johnson (1987).

In the formalization of RRG proposed by Osswald and Kallmeyer (2018, 360), the operator projection "assumes a single syntactic structure in which operator components are


Figure 3.10: Constituent and operator projections
 In ( 2005,14 ). This approach to marking operators is adopted throughout this work, with dashed lines connecting the operators to the nodes.


Figure 3.11: Alternative operator projection

### 3.1.4 The focus projection

The distribution of information in sentences has morphosyntactic consequences. The information or focus structure interacts with the other projections (constituent and operator) in the articulation of statements. The components of the focus projection are the information units (IUs), which correspond to the amount of information contained in a simple WH-expression (Lambrecht 1986). The basis of the proposition of the focal structure is found in the notions of "pragmatic presupposition" and "pragmatic assertion", expounded on in Lambrecht (1994, 52):

PRAGMATIC PRESUPPOSITION: The set of propositions lexicogrammatically evoked in a sentence which the speaker assumes the hearer already knows or is ready to take for granted at the time the sentence is uttered.

PRAGMATIC ASSERTION: The proposition expressed by a sentence which the hearer is expected to know or take for granted as a result of hearing the sentence uttered.

From the notions of pragmatic presupposition and pragmatic assertion, the concepts of "topic" and "focus" are derived. The former corresponds to the information which is interpreted pragmatically as something (the referent of the proposition) assumed or already known; it is therefore part of the pragmatic presupposition. The latter is the part of the propositional content that establishes the difference between the pragmatic presupposition and the pragmatic assertion, i.e., the asserted part of a declarative statement or what is asked in an interrogative statement. The information contained in the presupposition and how it relates to the new information (the focus) is the basis of the informative structure of the sentence. RRG calls the grammatical system that conventionally associates the distribution of information with a given sentence form, and which indicates the scope of the assertion in a sentence in a way that contrasts with the pragmatic presupposition, the "focal structure". Two main sections can be distinguished in the focal structure: (a) the potential focus domain (PFD), which corresponds to the syntactic domain in which the sentence focus can be found; and (b) the actual focus domain (AFD), which indicates the section of the statement that is effectively focused.

The marking of focus depends on the type of speech act; that is, it depends on
the illocutionary force (IF) operator, because the potential focus domain must fall within the IF operator. The focus domain can be any of the units in the core or the peripheral PPs. The focus structure projection must represent both the potential focus domain and the actual focus domain. The speech act node, which is related to the illocutionary force operator, anchors the focus structure projection, and the potential and actual focus domains are represented within its scope. This information is captured in the RRG representation of the focal structure, as can be seen in Figure 3.12, where the two types of focus domain are outlined: potential (dashed line) and actual (triangle). The nodes called IU make up the basic units, while the "speech act" node, which is directly related to the IF operator, is the anchor point of the focal structure projection (see Van Valin In 19990, [2014).


Figure 3.12: The focus projection

RRG classifies focal structures according to the following categories:

PREDICATE FOCUS STRUCTURE is found in sentences that express a constituent in a topic position, and in which the predicative phrase provides new information about it. It is the unmarked type of focus, and in it, the real focus domain is the predicative phrase. In the statement that expresses the answer in (8Ta), for example, the potential domain of focus considers the entire sentence, the topic corresponds to the noun phrase "my bicycle", and the actual focus domain is equivalent to the comment "it is broken".
(81) a. What happened to your bicycle?
b. $\left[{ }_{\mathrm{PFD}}\left[\right.\right.$ My bicycle $_{\text {topic }}\left[\right.$ AFD broke down $\left.\left.{ }_{\text {focus }}\right]\right]$

SENTENCE FOCUS. These structures do not have a topic. In them, both the potential and real focal domains are equivalent to the entire sentence. These sentences are generally used to introduce new referents in the discourse. In example (82a), it can be seen how all of the sentence constituents are in the domain of real focus and the sentence does not have a topic.
(82) a. My bicycle broke down
b. $\left[{ }_{\text {PFD }}\left[\right.\right.$ My bicycle $\left[{ }_{\text {AFD }}\right.$ broke down $\left.]\right]$

NARROW FOCUS. In sentences with this type of structure, the real domain of focus corresponds to a single constituent. In the answer in (83b), for example, while the potential focus domain encompasses the entire sentence, the actual focus domain is concentrated in the constituent "MY CAR" (capital letters denote contrastive intonation).
a. I heard your skateboard broke?
b. [afd My CAR [pFD broke]]

The potential focus domain in the simple sentence seems to correspond to the clause, so any constituent found in the nucleus, the core, or the peripheries can be focalized, while the elements that appear in the detached positions are topical by default and are therefore outside the potential domain of focus (see Sections 6.1] and 6.2).

The RRG theory of information structure was adapted from Lambrecht (1986, 1987, 1994, 2000 ), whose theory of information structure posits three types of foci: narrow, predicate, and sentence focus. These types indicate the focused constituents in a proposition. Lambrecht's theory was further enhanced in RRG with the introduction of the concepts of PFD potential focus domain and AFD. The former refers to the possible domain which can be focused, and the latter to the specific position of a focused element. RRG also adapted the Discourse Representation Theory of (Von Heusinger 1999) in order to formally represent
the interaction of presuppositions and assertions (Van Valin In 2005). Based on (O'Connor 2008 ), a representation of prosody has also been proposed.

### 3.2 The Layered Structure of the Reference Phrase

Similarities in the structure of the RP and the LSC become especially pronounced when RPs are complex derived nominals (see Van Valin In 2005, 24-30). The primary correspondences between RPs and clauses are between their layered structures and their operator projections. In the layered structure of the RP, there is a nominal nucleus $\left(N U C_{R}\right)$ and a nominal core $\left(\mathrm{CORE}_{\mathrm{R}}\right)$ consisting of the nucleus and the arguments of a complex derived nominal, e.g. 3.15, but there is only one level corresponding to the clause and sentence levels. The layers of the RP may also be modified by peripheral elements.

The layered structure of reference phrase (LSRP) contains a reference phrase initial position (RPIP), a daughter of the RP node. This position is occupied by a variety of elements, depending on the language: WH-words, demonstratives, possessive pronouns, articles, or possessor phrases (Van Valin In 2005, 26). The RPIP is a core-initial position that subsumes the functions of the PrDP and the PrCS in the LSC. This follows from the fact that unlike sentential units with four layers, a complex RP has only three.

The nuclear periphery is occupied by adjunct restrictive modifiers such as adjectives, nominal modifiers, and restrictive relative clauses. The core periphery is occupied by adjunct PPs and adverbials, and the RP periphery is occupied by non-modifiers such as nonrestrictive relative clauses. Figure (3.I3) shows an example of an RPIP for the English RP this book:

Table 1.4 shows the operators of the RP at each level. Nominal aspect, a nuclear $\left(\mathrm{NUC}_{\mathrm{R}}\right)$ operator, involves the count-mass distinction in parallel with the telic/atelic distinction in verbs (see Jackendoff 1992, 29), as well as distinguishing whether the referent is an individual, part of an individual, or a set of individuals. Core $\left(\mathrm{CORE}_{\mathrm{R}}\right)$ operators are about quantity and negation. Quantification is expressed through the grammatical category of number as well as lexical expressions like numerals and quantifiers. Negation may be


Figure 3.13: RPIP with definiteness and deixis operators
expressed through a special negative form for RPs, such as no in English, special determiners which interact with sentential negation, such as English any as in Mary didn't buy any books, and nouns and pronouns with an inherently negative meaning, such as German nichts, Czech nic, and French rien 'nothing'. RP-level operators, encoding definiteness and deixis, are analogous to the function of some of the clause-level operators, such as tense and illocutionary force. They are primarily concerned with expressing the location of the referent with respect to a reference point, usually the interlocutors (deictics), and with indicating the speaker's assumption about the identifiability of the referent by the hearer (definiteness). The usual formal expression of these operators is in the form of determiners; in particular, articles and demonstratives. Operators in the RP follow the same iconic ordering constraint as operators within the clause ( Rijkhotf 1990, 20(02).

| Level | Operator |
| :---: | :---: |
| Nuclear $_{\mathrm{N}}$ | Nominal aspect (count-mass distinction, classifiers) |
|  | Number |
| Core $_{\mathrm{N}}$ | Quantification (quantifiers) |
|  | Negation |
| RP | Definiteness |
|  | Deixis |

Table 3.4: RP operators

A preliminary general schema for the layered structure of the RP is given in Figure 3.14 as a homomorphic mirror image (for ease of presentation). Syntactic templates for RPs and PPs would be stored in the syntactic inventory along with the other templates discussed
in the previous section.


Figure 3.14: The layered structure of the RP

In Figure 3.15, the initial definite article the is attached to the RP node in the constituent projection by a dotted line due to its status as one of the RP operators.


Figure 3.15: Complex RP

### 3.3 The semantic representation

As previously mentioned, the interplay of syntax and semantics lies at the heart of RRG, so that syntax no longer enjoys a dominant position. It is of little or no use to grasp the syntactic representation (Section B.L. I) without meaning assigned to it. The semantic representation of a sentence is based on the lexical decomposition of the predicate in the nucleus, which falls under one of the six Aktionsart types ${ }^{[16}$. The Aktionsart types and their defining features

[^34]are given in Table 3.5.

|  | static | dynamic | telic | punctual |
| :---: | :---: | :---: | :---: | :---: |
| State | + | - | - | - |
| Activity | - | + | - | - |
| Achievement | - | - | + | + |
| Semelfactive | - | $\pm$ | - | + |
| Process | - | - | - | - |
| Accomplishment | - | - | + | - |
| Active accomplishment | - | + | + | - |

Table 3.5: Characterization of verbal Aktionsart based on Van Valin Jrl (2022)

According to static parameters, the classes of states and activities make up the most basic distinction. The dynamic parameter refers to any non-static event, telicity implies an inherent endpoint, and punctuality refers to instantaneity. Furthermore, the state-activity distinction is fundamental because they are the only classes to have argument positions that define thematic relations. The other classes are compositionally derived from one of these two classes, as can be seen in Table 3.6. Examples of English predicates of each class are given in (84) below:
a. States be sick, be short, be dead, know, love, etc.
b. Activities look at, walk, eat (intransitive or transitive with non-referential object $R P)^{[7]}$, run (without a complement), etc.
c. Achievements pop, shatter, explode (intransitive), etc.
d. Process melt, freeze, grow, etc.
e. Semelfactives sneeze, flash, blink, cough, etc.
f. Accomplishments $d r y$, dissolve (intransitive), etc.
g. Active Accomplishments ${ }^{\boxed{18}}$ run $(+$ goal PP), eat $(+$ a referential RP), build $(+$ $R P)$, etc.

[^35]Furthermore each of these classes has a causative counterpart, as in (85) below:
a. Causative state The jaguar frightens/scares the boy.
b. Causative achievement The cat popped the balloon.
c. Causative semelfactive The teacher tapped the pencil on the table.
d. Causative accomplishment The hot water melted the ice.
e. Causative activity The girl bounced the ball around the room.
f. Causative active accomplishment The sergeant marched the soldiers to the park.

The logical structure of each Aktionsart class is given in Table B.6. Predicates (pred') are represented in bold followed by a prime symbol. These are part of the vocabulary of the semantic metalanguage used in the decomposition not words in a particular language (e.g. English hear or German hören). Arguments are written inside the parenthesis, and variables ' $x$ ', ' $y$ ', and ' $z$ ' are used when no referents are specified.

| Aktionsart class | Logical structure |
| :---: | :---: |
| State | $\operatorname{pred}^{\prime}(\mathrm{x})$ or (x, y) |
| Activity | do', ${ }^{\left.\text {(x, },\left[\mathbf{p r e d}^{\prime},(\mathrm{x}), \mathrm{or},(\mathrm{x}, \mathrm{y})\right]\right)}$ |
| Achievement | INGR pred' ( x ) or ( $\mathrm{x}, \mathrm{y}$ ), or |
| Achievement |  |
| Process | PROC being.consumed ${ }^{\prime}(\mathrm{x})$ or ( $\mathrm{x}, \mathrm{y}$ ) |
|  | PROC becoming.higher/lower.on.[ $\alpha$ ]scale ${ }^{\prime}$ ( x ) |
|  | PROC moving.direction)' (x) |
|  | SEML pred $^{\prime}(\mathrm{x})$ or ( $\left.\mathrm{x}, \mathrm{y}\right)$ |
| Semelfactive | SEML do' ${ }^{\left(x, ~\left[p r e d^{\prime}\right.\right.}(\mathrm{x})$ or ( $\left.\left.\mathrm{x}, \mathrm{y}\right)\right]$ ) |
| Accomplishment | BECOME pred ${ }^{(1)}$ ( or ( $\mathrm{x}, \mathrm{y}$ ), or |
| Accomplishment | BECOME do' ${ }^{\left(x, ~\left[p r e d^{\prime}(x) ~ o r ~(x, ~ y)\right]\right) ~}$ |
| Activity accomplishment | do $^{\prime}\left(\mathrm{x},\left[\mathrm{pred}_{1}{ }^{\prime}(\mathrm{x},(\mathrm{y}) \mathrm{)}]\right) \& \mathrm{INGR} \mathrm{pred}_{2}{ }^{\prime}(\mathrm{z}, \mathrm{x})\right.$ or (y) |
| Causative | $\alpha$ CAUSE $\beta$ (where $\alpha, \beta$ are logical structures of any type) |

Table 3.6: Aktionsart and their logical structures, from Van Valin .Jr (2005, 45)

As can be seen in Table [3.6, the activity, achievement, and semelfactive classes all have an activity component $\left(\mathbf{d o}^{\prime}[\mathrm{x}, \ldots]\right)$, which lexicalizes agency in the LS of the predicate and which is absent from state predicates. The remaining classes are related to a stative or
inactive component in the LS: predicate ${ }^{\prime}(\mathrm{x})$ or predicate $^{\prime}(\mathrm{x}, \mathrm{y})$. Examples of each class with their respective logical decomposition are given in (86)-(प2) below:
(86) STATES
Igor is a fool $\quad \mathbf{b e}^{\prime}\left(\right.$ Igor, fool $\left.\left.^{\prime}\right]\right)$ The window is shattered shattered ${ }^{\prime}$ (window)

Fred is at the house. be-at ${ }^{\prime}$ (house, Fred)
John saw the picture. see $^{\prime}$ (John, picture)

The children cried. $\quad \mathbf{d o}^{\prime}$ (children, $\left[\right.$ cry $^{\prime}$ (children)])
(87) ACTIVITIES The wheel squeaks. do ${ }^{\prime}$ (wheel, [squeak ${ }^{\prime}$ (wheel)])

Carl ate snails. $\mathbf{d o}^{\prime}\left(\right.$ Carl, $\left[\right.$ eat $^{\prime}($ Carl, snails $\left.\left.)\right]\right)$

ACHIEVEMENTS
The window shattered. INGR shattered ${ }^{\prime}$ (window)
The balloon popped. INGR popped ${ }^{\prime}$ (balloon)
(89) SEMELFACTIVE

John coughed.
SEML do ${ }^{\prime}$ (Mary, [cough' (Mary)])
Mark glimpsed the image. SEML do ${ }^{\prime}$ (Mark, [glimpse ${ }^{\prime}$ (image)])

The snow melted. BECOME melted ${ }^{\prime}$ (snow)
(90) ACCOMPLISHMENTS The sky reddened. BECOME red' (sky)

Mary learned French. BECOME know ${ }^{\prime}$ (Mary, French)

## (91) ACTIVITY ACCOMPLISHMENT

Carl ate the snail. $\mathbf{d o}^{\prime}\left(\right.$ Carl, $^{\left[\text {eat'}^{\prime}\right]}($ Carl, snail $\left.\left.)\right]\right) \wedge$ PROC being.consumed ${ }^{\prime}$ (snail) $\wedge$ FIN consumed ${ }^{\prime}$ (snail)

Paul walked one mile to the store. $\quad \mathbf{d o}^{\prime}\left(\right.$ Paul, $\left[\right.$ walk $\left.^{\prime}\right]($ Paul $\left.\left.)\right]\right) \wedge$ PROC covering.path.distance ${ }^{\prime}$ (Paul, one mile) $\wedge$ FIN be-at ${ }^{\prime}$ (store, Paul)
(92) CAUSATIVES

The jaguar scared the boy. $\quad\left[\mathbf{d o}^{\prime}(\operatorname{dog}, \varnothing)\right]$ CAUSE $\left[\right.$ feel ${ }^{\prime}$ (boy, $\left[\right.$ afraid $\left.\left.\left.^{\prime}\right]\right)\right]$
Max broke the window. $\quad\left[\mathbf{d o}^{\prime}(\operatorname{Max}, \varnothing)\right]$ CAUSE [BECOME broken' (window)]
The cat popped the balloon. [do' $(\mathrm{cat}, \varnothing)]$ CAUSE [INGR popped' ${ }^{\prime}$ (balloon)]
Felix bounced the ball
$\left[\right.$ do $^{\prime}($ Felix, $\left.\varnothing)\right]$ CAUSE $\left[\right.$ do $^{\prime}$ (ball, [bounce ${ }^{\prime}$ (ball)])]

The linguistically relevant distinctions of Aktionsart classes can be tested according to language-specific criteria (see Kroeger 2018, 381-386). In English, for example, situations describing states cannot be an answer to the question What happened? and cannot be used with the progressive form (be V-ing) ${ }^{\text {可 }}$. Given the parameters that define the Aktionsart classes, such as duration, telicity, etc. (see table (3.5), the co-occurrence of an action with certain types of adverbs may serve as a reliable test. Activities and activity accomplishments may occur with adverbs that code dynamic action, as long as the adverbs do not require a controlling PSA (subject), e.g., deliberately, carefully, because they are incompatible with activity verbs that have PSAs referring to non-agentive participants, e.g., the dog shivered violently/*deliberately. Accomplishments, such as die (BECOME dead ${ }^{\prime}$ (x)) in languages such as English, German, and Portuguese, may co-occur with an adverb like slowly, which is impossible for achievements. In Mandarin, for example, the verb die is an achievement (INGR dead' ${ }^{\prime}$ (x)), so that *tā sǐ de kuài 'he died quickly' is ungrammatical. For examples of other tests, see Van Valin Jr and LaPolla (1997, 94-102) and Kroeger (2018, 381-386).

Some languages may mark Aktionsart classes of predicates morphologically. In Tupinambá, most of the verbs which have the operator CAUSE in their logical structures will take the prefix mo-, indicating that they are causatives - compare Tupinambá mbo Pe 'teach' (<mo + Pe, literally 'cause to say') and English teach, where the causative is not morphologically marked. Both have the logical structure $\left[\mathbf{d o}^{\prime}(\mathrm{x}, \varnothing)\right]$ CAUSE [BECOME $\mathbf{k n o w}^{\prime}\left(\mathrm{y}_{\text {COGNIZER }}, \mathrm{z}_{\text {CONTENT }}\right)$ ].

There are only five thematic relations, one for each position in the logical structure. This can be seen in the 'thematic relations continuum' along the actor-undergoer hierarchy shown in Figure 3.16.

The semantic interpretation of an argument in the logical decomposition is a function of its position in the LS of the predicate: the leftmost argument, in terms of the actorundergoer hierarchy (AUH), is the actor, while the rightmost argument is the undergoer.

[^36]| Arg of DO | 1st arg of do' ( $\mathrm{x}, \ldots$ | 1st arg of pred' ( $\mathrm{x}, \mathrm{y}$ ) | 2nd arg of pred' $^{\prime}(\mathrm{x}, \mathrm{y})$ | Arg of state pred' (x) |
| :---: | :---: | :---: | :---: | :---: |
| AGENT | EFFECTOR | LOCATION | THEME | PATIENT |
|  | MOVER | PERCEIVER | Stimulus | ENTITY |
|  | ST-MOVER | Cognizer | CONTENT |  |
|  | L-EMITTER | WANTER | DESIRE |  |
|  | S-EMITTER | JUDGER | JUDGMENT |  |
|  | PERFORMER | POSSESSOR | Possessed |  |
|  | CONSUMER | EXPERIENCER | SENSATION |  |
|  | CREATOR | EMOTER | TARGET |  |
|  | SPEAKER | ATTRIBUTANT | ATTRIBUTE |  |
|  | OBSERVER |  | PERFORMANCE |  |
|  | USER |  | CONSUMED |  |
|  |  |  | CREATION |  |
|  |  |  | LOCUS |  |
|  |  |  | IMPLEMENT |  |

Figure 3.16: Thematic relations continuum along the actor-undergoer hierarchy. From Van Valin Jr (2001a)

Some examples are given in Table (3.7) for state predicates and in Table (3.8) for activity predicates (from Van Valin Jn 2005, 55).

| State |  |  |  |
| :---: | :---: | :---: | :---: |
| 1 arg : | State/condition Existence | $\begin{gathered} \text { broken' }^{\prime}(\mathrm{x}) \\ \text { exist }^{\prime} \text { (x) } \end{gathered}$ | $\begin{gathered} \mathrm{x}=\text { PATIENT } \\ \mathrm{x}=\mathrm{ENTITY} \end{gathered}$ |
| 2 args: | Pure location Perception Cognition Identificational | $\begin{gathered} \text { be-loc }^{\prime}(\mathrm{x}, \mathrm{y}) \\ \text { hear }^{\prime}(\mathrm{x}, \mathrm{y}) \\ \mathbf{k n o w}^{\prime}(\mathrm{x}, \mathrm{y}) \\ \mathbf{b e}^{\prime}\left(\mathrm{x},\left[\text { pred }^{\prime}\right]\right) \end{gathered}$ | $\begin{gathered} \mathrm{x}=\text { LOCATION, } \mathrm{y}=\text { THEME } \\ \mathrm{x}=\text { PERCEIVER, } \mathrm{y}=\text { STIMULUS } \\ \mathrm{x}=\text { COGNIZER } \mathrm{y}=\mathrm{CONTENT} \\ \mathrm{x}=\text { IDENTIFIED }, \mathrm{y}=\text { IDENTITY } \end{gathered}$ |

Table 3.7: Decomposition of state predicates and thematic relations

| Activity |  |  |  |
| :---: | :---: | :---: | :---: |
| 1 arg | Unspecified action | do ${ }^{\prime}(\mathrm{x}, \varnothing)$ | $\mathrm{x}=\mathrm{EFFECTOR}$ |
|  | Motion | do $^{\prime}\left(\mathrm{x},\left[\mathrm{walk}^{\prime}(\mathrm{x})\right]\right.$ ) | $\mathrm{x}=\mathrm{MOVER}$ |
|  | Static motion | do ${ }^{\prime}\left(\mathrm{x},\left[\mathbf{s p i n}^{\prime}(\mathrm{x})\right]\right)$ | $\mathrm{X}=$ ST-MOVER |
|  | Light emission | do $^{\prime}\left(\mathrm{x},\left[\right.\right.$ shine $\left.^{\prime}(\mathrm{x})\right]$ ) | $\mathrm{x}=\mathrm{L}-\mathrm{EMITTER}$ |
| 2 args | Performance | do $^{\prime}\left(\mathrm{x},\left[\operatorname{sing}^{\prime}(\mathrm{x},(\mathrm{y})\right.\right.$ )]) | $\mathrm{x}=$ PERFOMER, $\mathrm{y}=$ PERFORMANCE |
|  | Consumption | do $^{\prime}\left(\mathrm{x},\left[\mathbf{e a t}^{\prime}(\mathrm{x},(\mathrm{y}) \mathrm{)}]\right)\right.$ | $\mathrm{x}=$ CONSUMER, $\mathrm{y}=$ CONSUMED |
|  | Repetitive action | $\mathbf{d o}^{\prime}\left(\mathrm{x},\left[\mathbf{t a p}^{\prime}(\mathrm{x}, \mathrm{y})\right.\right.$ )]) | $\mathrm{x}=$ EFFECTOR, $\mathrm{y}=$ LOCUS |
|  | Directed perception | do $^{\prime}\left(\mathrm{x},\left[\sec ^{\prime}(\mathrm{x}, \mathrm{y})\right.\right.$ )]) | $\mathrm{x}=$ OBSERVER, $\mathrm{y}=$ STIMULUS |

Table 3.8: Decomposition of activity predicates and thematic relations

The arguments of predicates in each class share certain characteristics and semantic roles. Since many verb-specific semantic roles can be generalized, (e.g., giver, runner, killer,
and speaker are all agents), semantic roles can be generalized through thematic relations, ${ }^{\text {,0] }}$ which in turn are generalized by two semantic macroroles, actor and undergoer (see Section B.3.2). Actor is a generalization across agent, experiencer, recipient, and other roles, while undergoer is a generalization subsuming stimulus, theme, recipient, and other roles ${ }^{\text {TU }}$. Agent is the prototype for actor, and patient is the prototype for undergoer. Figure (3.17), from Van Valin .Jr (2005, 54), summarizes these increasing generalizations:


Figure 3.17: Increasing generalization of semantic contrasts (from Van Valin Jr [2005, 54)

Due to the characteristics that arguments of predicates share with semantic roles, it is possible to associate thematic relations with particular predicate classes or, more specifically, with particular positions in semantic representations. For example, with a oneargument state predicate, this argument will have the role of patient (pred ${ }^{\prime}$ (x)). In the case of a two-argument state predicate, the leftmost argument in the hierarchy (Figure B.18) will be the actor and the rightmost will be the undergoer. Each argument in the syntactic

[^37]representation of a simple clause must be linked to an argument position in the LS of the predicate.

In the continuum in Figure B.16, it can be seen that with the exception of 'agent', each of the thematic relations listed under a particular argument position represents a distinct subclass of state or activity verb, and accordingly, each is a label for an argument position in the LS of a particular type of verb. For example, 'cognizer' means 'first argument of a two-argument state predicate of experience', and 'content' means 'second argument of a two-argument state predicate of perception'. These thematic relations cannot be predicted, and therefore need to be made explicit: know $^{\prime}$ ( $\mathrm{x}_{\text {Cognizer }}, \mathrm{y}_{\text {Content }}$ ).

### 3.3.1 Lexical representation of nominals

RRG bases the semantic representation of nominals on the theory of Nominal Qualia proposed by Pustejovsky (1995) ${ }^{\text {² }}$ and represents them in terms of the decomposition system used in RRG (see Van Valin In [2005, 50-3). The Generative Lexicon, proposed by Pustejovsky (11995), is an approach relying on a richly structured lexicon. This approach to lexical representation focuses on semantic phenomena such as coercion and systematic polysemy. Lexical entries include, in addition to argument structure, an "event structure" and a "Qualia structure", both of which play a fundamental role in GL accounts of semantic composition.

The Qualia theory postulates that the meaning of nouns can be captured by four Qualia relations or roles, which together constitute the Qualia Structure of the word in question. These are the Formal, the Constitutive, the Telic, and the Agentive Quale. These can be understood as four different perspectives on defining sense, as given in (3.3.]).
(93) Qualia theory
a. Constitutive role: accounts for the relation between an object and its constituents

1. material

[^38]2. weight
3. parts and component elements
b. Formal role: that which distinguishes the object within a large domain

1. orientation
2. magnitude
3. shape
4. dimensionality
5. colour
6. position
c. Telic role: purpose and function of the object
7. purpose that an agent has in performing an act
8. built-in function or aim that specifies certain activities
d. Agentive role: factors involved in the origin or 'bringing about' of an object
9. creator
10. artifact
11. natural kind
12. causal chain

The Qualia structure of the TUP noun miape 'bread' is represented in the attribute value matrix in (94):
$\left[\begin{array}{ll}\text { MIAPE } & \\ \text { QUALIA } & {\left[\begin{array}{l}\mathrm{Q}_{\mathrm{F}} \text { food } \\ \mathrm{Q}_{\mathrm{C}} \text { flour, } \text { water, yeast, salt } \\ \mathrm{Q}_{\mathrm{T}} \text { eat } \\ \mathrm{Q}_{\mathrm{A}} \text { bake }\end{array}\right]}\end{array}\right]$

Referential identification can be specified as shown in ([5]). This says that $r$ refers to an entity (or set of entities) in a domain of reference which is an element in the extension of the set of qualia properties $\left\{Q_{\mathrm{C}}, Q_{\mathrm{F}}, Q_{\mathrm{T}}, Q_{\mathrm{A}}\right\}$ in the domain of reference. For the reference
of a particular noun, the qualia properties in (25) are coindexed with the qualia properties specified for that noun, as in (24).
(95) Referential identification: $\left\{Q_{C}, Q_{F}, Q_{T}, Q_{A}\right\}$ (r)

Nominal modifiers are also represented as predicates in the semantic representation. Attributive predication is represented by 'be' (x, [pred']), as in example (26) and (27), predicative and attributive modification respectively.
(96) The car is white
$\mathbf{b e}^{\prime}\left(\right.$ car, $\left[\right.$ white $\left.\left.^{\prime}\right]\right)$
(97) I see a white car
see $^{\prime}$ (I, [be' (car, [white' $]$ )]

### 3.3.2 Semantic Macroroles and Lexical Entries for Verbs

The idea of semantic macroroles is unique to RRG (see Van Valin Jr 1999a, 2001a). They are the "primary interface between the LS and syntactic representations" (Van Valin In 2006b, 287)

The two semantic macroroles, actor and undergoer ${ }^{[23}$, are the two primary arguments of a transitive predication, either one of which may be the single argument of an intransitive $\operatorname{verb}^{24 .}$. The correlation between the semantic position of the argument and how likely it is to be the actor or undergoer is captured by the AUH, shown in Figure 3.16:

## (98) Default Macrorole Assignment Principles

a. Number: the number of macroroles a verb takes, which is less than or equal to the number of arguments in its logical structure

1. If a verb has two or more arguments in its LS, it will take two macroroles.
[^39]
## ACTOR

## UNDERGOER

| Arg. of | 1st arg. of 1 st arg. of |  |  |  |
| :--- | :--- | :--- | :--- | :--- |
| DO | do $^{\prime}(x, \ldots$ | pred $^{\prime}(x, y)$ | 2nd arg. of <br> pred $^{\prime}(x, y)$ | Arg. of <br> pred $^{\prime}(x)$ |

Figure 3.18: The actor-undergoer hierarchy. The arrows indicate the increasing markedness of the realization of an argument as macrorole
2. If a verb has one argument in its LS , it will take one macrorole.
b. Nature: for verbs which take one macrorole

1. If the verb has an activity predicate in its LS, the macrorole is the actor.
2. If the verb has no activity predicate in its LS, the macrorole is the undergoer.

Transitivity in RRG is defined semantically in terms of 'M-transitivity' (macroroletransitivity), which corresponds to the number of macrorole arguments a predicate takes. This is in contrast to 'S-transitivity' (syntactic transitivity), which refers to the number of syntactic arguments a predicate takes. The M-transitivity of a verb can be predicted using the principles in (98la). If these principles are apparently violated, then the source of irregularity comes from the fact that a verb has fewer macroroles than the principles in (28]a) would predict, and this irregular M-transitivity is marked in their lexical entries (see Van Valin Ir (20)4), as e.g., the verb helfen 'help' and gefallen 'please' in German, which are syntactically transitive, but their M-transitivity is irregular. The three M-transitivity possibilities are: transitive ( 2 macroroles), intransitive ( 1 macrorole), and atransitive ( 0 macroroles). ${ }^{[2]}$. Three-place predicates take three core arguments, but there can be no more than two macroroles (Van Valin Jr 2005, 64). The third argument in a ditransitive construction is not a macrorole, but rather a "non-macrorole core argument".

### 3.3.3 Syntactic functions, case and preposition assignment

The linking of semantics and syntax has two phases: first, the determination of semantic macroroles based on the LS of the predicate; and second, the mapping of the macroroles

[^40]and other arguments onto syntactic functions. RRG does not assume traditional grammatical relations like subject and object, positing instead a single, construction-specific grammatical relation, which is termed the privileged syntactic argument (PSA) of the construction (see Section [5.4). PSAs are associated with the notion of controller or pivot (Van Valin Jr and LaPolla 1997, chap. 6 and Van Valin In 2005, 94-101). The non-PSA syntactic arguments in the clause are referred to as the direct core argument (DCA) and oblique core argument (OCA). Languages have selection hierarchies to determine the PSA; the main ones are given in (29)) and (100), from Van Valin Ir (2005, 100).
(99) Privileged Syntactic Argument Selection Hierarchy:
$\arg$ of $\mathrm{DO}>1$ st $\arg$ of $\mathbf{d o}^{\prime}>1$ st $\arg$ of pred $^{\prime}(\mathrm{x}, \mathrm{y})>2$ nd $\arg$ of pred $^{\prime}(\mathrm{x}, \mathrm{y})>\arg$ of pred $^{\prime}$ (x)
(100) Accessibility to Privileged Syntactic Argument Principles:
a. Accusative constructions: Highest ranking direct core argument in terms of (09) [default]
b. Ergative constructions: Lowest ranking direct core argument in terms of (99) [default]
c. Restrictions on PSA in terms of macrorole status:

1. Languages in which only macrorole arguments can be PSA: German, Italian, Dyirbal, Jacaltec, Sama, ...
2. Languages in which non-macrorole direct core arguments can be PSA: Icelandic, Georgian, Japanese, Korean, Kinyaruanda, ...

The PSA selection hierarchy in (99) (from Van Valin In 2005, 100) is the actor part of the AUH. For a language like TUP, (100) the actor is the PSA, but there is significant cross-linguistic variation regarding PSAs (Van Valin Ir and LaPolla 1997, chapter 6). Because Tupinambá has no passive voice, it is not possible for the undergoer of a transitive verb to function as the privileged argument; there is a restricted neutralization of semantic contrasts because either the actor or the undergoer can function as the PSA with intransitive
verbs.

Case assignment rules are formulated with reference to the linking system. The basic rules for direct core arguments in accusative languages are given in (IDII).
(101) Case marking rules for accusative languages:
a. Highest ranking core macrorole takes nominative case.
b. Other core macrorole takes accusative case.
c. Non-macrorole direct core arguments take dative as their default case.

In a language like English, without RP case marking, there are rules for preposition assignment. The rules for 'to', 'from' and 'with' are given in (102).
(102) Preposition assignment rules for English
a. Assign 'to' to non-MR x argument in LS segment: ...BECOME/INGR pred' (x, y)
b. Assign 'from' to non-MR x argument in LS segment: ... BECOME/INGR NOT pred $^{\prime}(\mathrm{x}, \mathrm{y})$
c. Assign 'with' to non-MR y argument if, given two arguments, x and y , in a logical structure, with x lower than or equal to y on the Actor-Undergoer Hierarchy, y is not selected as a macrorole.

The rules in (102b,c) do not cover all of the uses of 'from' and 'with', and they are presented for illustrative purposes only. For more information on the assignment of adpositions, see Van Valin Jr and LaPolla (I997, 376-384).

### 3.4 Linking algorithms

RRG is a parallel architecture theory in terms of Jackendotf (2002) because syntax, semantics, and discourse-pragmatics have independent representations that may interact with each other. The previous sections have introduced the components that describe grammatical structure, i.e., the LSC, the lexical representation with semantic roles, syntactic func-
tions, and focus structure. This is a significant difference from Transformational Grammar, in which an expression can have a number of constituent structures; that is, it is not possible for an expression to occupy one position at one level of structure and another position at another level. Similarly distinct from Minimalism, RRG does not assume exclusively binary branching, leading to simpler flat structures. Another difference from minimalism is the fact that phonologically empty elements are not part of the theory, so that different sentence structures in languages may correspond to the same semantic structure, as in both sentences in (1033), in English and Czech respectively. Note how Czech lacks an article and does not need the independent pronoun.
a. I read a/the book.
b. Čtu knih-u read.IPFV.1SG book-ACC.SG 'I read a/the book."

The linking system relating semantic and syntactic representations is summarized
 syntactic pole of the system. These are structurally instantiated in the LSC. The logical structure represents the semantic pole.

The technical details of the linking algorithm are developed in Van Valin Jr and LaPolla (1997) and are not discussed here (see also Van Valin .Jr 2022 for a recent summary).

The relation between logical structure and macroroles is mediated by the actorundergoer hierarchy, shown in Figure B.J8. The relation between macroroles (and non-macrorole arguments of the verb) and morphosyntactic functions is subject to extensive cross-linguistic variation and is affected by the PSA selection hierarchy in Example $\%$ and selection principles in 10001 , as well as by the extent to which focus structure is grammaticalized in clauseinternal relational syntax (see Van Valin Jn [2005, 101-107).


Figure 3.19: The linking algorithm, from Van Valin .In $(2005,129)$

## Word classes

### 4.1 Introduction

Von Humboldt's (1836) assumption of language-specific word classes was later adopted by the American Structuralist School (see Boas [1911) under the view that lexical categories do not display exactly the same grammatical properties cross-linguistically (see Boas I9lla; Sapir 1921; Anward et al. 11997, Crott 2001, 63-83, Foley 2017, 182 Haspelmath 2007, 2020).

In line with recent typological research, word classes ${ }^{\left[\begin{array}{l}\end{array}\right.}$ are here considered neither as inherent properties of lexical roots, nor as atomic, primitive units of grammatical analysis and structure (Dryer 1997a; Haspelmath 2007; Croft 2001; Song 2018; Haspelmath 2021b; Croft [022a,b). Word classes are taken to be a comparative concept, and in this sense, the question of whether all languages have some or all of the same categories becomes meaningless (Dixon 1982; Anward et al. [1997; Dixon 2004; Crott 2001; Rijkhott 2007; Rijkhott and van Lier 2013; Crott 2022b). As Crott (2022a, 11) observes, the facts that are supposedly about a word class in a language description are really facts about the construction(s) used to define that word class. Comparative concepts (Haspelmath 2010) involving form and function would serve as an appropriate basis for cross-linguistic comparison (Croft 1990, $2003)^{[D}$. Formal properties must be defined in a cross-linguistically valid fashion, i.e., not in

[^41]terms of language-specific distributional patterns (see Crott 2001, 75-83 and Crott 2022b). Word classes must be defined in terms of their roles in constructions (Crott 2022b).

A common sense ontology, based on the denotational or contentive meaning of lexical roots (see Beck 2002, 12), reflects how entities populating the universe are perceived and conceived by human cognition (Jackendott 1983; Braine [1992, 1994; Kemmerer 2019). This "universal" ontology or semantic categorization coincides with a linguistic categorization that classifies lexical items according to language-specific criteria. When used in a general sense, 'noun', 'verb', and 'adjective ${ }^{, 6]}$ are useful terms for describing languages, but these concepts seldom correspond to or display any overlapping properties of these categories from one language to another (Anward et al. 1997; Haspelmath 2007; Evans 2000). Whiteness denotes a property but is classified as a noun in English, just as destruction denotes an action but is classified as a noun. Tupinambá, as well as other TG languages, has a unique form for white, whiteness, and be white, respectively (see Dietrich 20011), which can only be distinguished on the basis of constructions.

Beginning with semantics, object-, property-, and action-denoting roots can be categorized according to their occurrence in three propositional act functions or information packaging (Searle 1969; Croft 1991, 2001; Haspelmath 2021b; Croft 2022a): reference, modification, and predication. Some combinations of semantic classes and information packaging tend - though this is not a necessary condition - to exhibit a "default behavior" across languages, with each root type being more or less marked when associated with one of the information packaging types (see Croft 1991, 2001, 2022a). Treating information packaging and semantic classes as parameters that are non-independent, the default behavior or privileged combinations are the following: reference to object = the prototypical "noun", modification by property = prototypical "adjective", and predication of action = prototypical "verb". These prototypes are based on the cross-linguistic distribution of language-internal distribution patterns, revealing a tendency of overt coding (markedness)

[^42]and inflection to avoid prototypes (Haspelmath 2021b; Crott 2022a).

In Table 4.ll, the "privileged combinations" are the values in the diagonal, i.e. <object, reference>, <property, modification>, and <action, predication>. Function indicators (additional coding), in the case of English, are given in bold.

|  | reference | modification | predication |
| :---: | :---: | :---: | :---: |
| objects | - | genitive flag | object-word copula |
| properties | substantivizer <br> (the new one) | the rent of the house | is a student |
| actions | nominalizer <br> the open-ing | the work that they did | is big |
|  | thepula |  |  |

Table 4.1: Information packaging and semantic root classes combined in English. The elements in the diagonal are those exhibiting "default" behavior

Based on the behavior displayed by these combinations, (2021b) posits five types which account for different indicator coexpression patterns for different aspects of coding. English, for example, in predicative function, is of the nominalis coexpression type, since it requires a copula for object- and property-roots, but not for the action-root (see Figure 4.1).


Figure 4.1: Five coexpression types of function indicators from Haspelmath (2021b)

RRG, as a typologically oriented theory, also considers categories to be languagespecific. RRG assumes functionally motivated non-endocentric syntactic categories such as the nucleus containing the predicate, (potentially) referential phrases, modifying phrases, or even clauses. These syntactic slots can be realized by whatever lexical category is employed in a given language's specific syntactic templates. Categorical specifications of lexical items and the syntactic slots into which they are inserted must not match, since such a specifica-
tion does not form part of the syntactic structure (see Van Valin Jr 2008b). As Van Valin TII (2022, 15) observes, the status of lexical categories in RRG is related to the semantic distinction between referential expressions and predicates, a distinction borne of the fundamental opposition motivating the LSC, i.e., that between predicating and non-predicating elements. Thus, RRG also acknowledges the combination of lexical roots and information packaging types. Van Valin Jr (2016) also suggests that at the most basic level, lexical items fall into one of two classes: they are either referring expressions or predicates and they are like grammatical relations: language specific but with a universal semantic foundation. Table 4.2 shows that this is the case in TUP, where the basic distinction is between predication and non-predication. Modification is either found in predication or in referential function.

### 4.2 Word classes in Tupinambá

Word classes have been a recurrent topic in the studies of Tupían languages Rodrigues 1996a; Dietrich 2001; Seki 1990, 2000; Queixalós 2001; Rose 2002; Meira 2006; Dietrich $2017 \mathrm{c})^{\text {¹ }}$, and this is not surprising. Already in 1595, Anchieta noted in his grammar that it was not possible to talk about word classes in a comparative way (see Anchieta 1595, $44 \mathrm{v}-45$.

Based on the types defined by Haspelmath (2021b) presented in the previous section, Tupinambá belongs to the acategorial type, since none of the root semantic classes require a copula in predicate function. TUP lexical roots are existential predicates and require additional coding (function indicating morphology) in order to be used in modification or reference. The three semantic classes, namely objects, properties, and actions (Croft 2022a), combined with propositional act functions and overtly marked structural coding for POS in Tupinambá, are exemplified in Table (4.2).

The fundamental distinction shown in Table 4.2 is that between predication and

[^43]|  | reference | modification | predication |
| :--- | :--- | :--- | :--- |
| objects | ok- $\boldsymbol{a}$ 'house' | r-ok(-a) '(of the) house' | ok 'be a house' |
| properties | poray-a 'beauty' | poraŋ 'beautiful' | poraŋ 'be beautiful' |
| actions | kutuk-a 'the poking' | o-kutuk- $\boldsymbol{\beta a} \boldsymbol{a} \boldsymbol{e}$ 'one that pokes' | kutuk 'poke' |

Table 4.2: Semantic classes combined with propositional act functions and overtly marked structural coding for POS in Tupinambá
reference (see Meira 2006,212 ), which is manifested through markedness ${ }^{\boxed{\pi}}$ and captured by a mapping between semantic class and pragmatic function.

While predication is characterized by the absence of overt coding, two types of predication are found in TUP and they are differentiated by constructions. The "verbal" type requires indexes from Set II and IV (see Table 4.3]), while PREDPOSSESSIVE predication ${ }^{[6]}$ requires bound indexes from Set I (see Table 4.3) .

The propositional speech act function reference is illustrated below with all three semantic root classes. All semantic classes require the referential suffix $-a \sim \varnothing$ for this function ${ }^{\square}$ :
(104) Object-word in reference function
$\begin{array}{lll}\text { Nerera } & \text { renupa } & \text { aße } \\ \text { ne=r-er-a } & \text { r-enup-a } & a \beta e\end{array}$
ne=r-er-a r-enup-a aße
$2 \mathrm{SG}=\mathrm{R}_{1}$-name-REF $\mathrm{R}_{1}$-hear-GER ADV
'Also hearing your name.' (Poemas, 174)
(105) Property-word in reference function
$\mathrm{K}^{\mathrm{w}}$ arasi sose oporaya $\mathrm{k}^{\mathrm{w}} \mathrm{a}$ e?ena
$\mathrm{k}^{\mathrm{w}}$ arasi- $\varnothing \varnothing$-sose o-poray-a $\quad \mathrm{k}^{\mathrm{w}} \mathrm{a} \beta$ e?ey-a
sun-REF $\quad \mathrm{R}_{1}$-POSP CORF-beauty-REF show-GER
'Showing her (own) beauty (which is) more than the sun.' (Araújo, 4v)
(106) Action-word in reference function

[^44]```
MaPeete kaPuwasu
maPe-ete kaPu-wasu- \(\varnothing\)
thing-INTS drink-big-REF
```

'A big drunkenness is a good thing.' (Teatro, 8)

The propositional speech act function modification is illustrated with all three semantic root classes. Modifications will be either arguments or predicates and additional coding will vary depending on the type of modification: genitive flag as in (I07), juxtaposition as in (108), and relativization as in (109).
(107) Object-word in modification function

Oka rerekoara
oka- $\varnothing$ r-erekoar-a
house-REF $\mathrm{R}_{1}$-guardian-REF
'Guardian of the house.' (VLB, I, 6)
(108) Property-word in modification function

Nerekoporaya
ne=r-eko-poray-a
2SG=R1-be-beauty-REF
'Your beautiful way (of being).' (Teatro, 122)
(109) Action-word in modification function

OwatáßaRe
o-wata- $\beta$ aRe
3-walk-REL
'The one going / the going one.' (DC, II, 79)

The propositional speech act function predication is exemplified with object-word (Ш1) , property-word (Ш1), and action-word (Ш2) (see Section 5.5)).
(110) Object-word in predicate function (predpossessive/existential predication)
ferer
fe=r-er
$1 \mathrm{SG}=\mathrm{R}_{1}$-name
'I have a name / there is my name.' (VLB, II, 50)
(111) Property-word in predicate function (predpossessive/existential predication)

Iporay
i-poray
$\mathrm{R}_{2}$-beauty
'It was beautiful.' (Poemas, 152)
(112) Action-word in predicate function (verbal predication)

Paranã rupi awata
paranã- $\varnothing$ r-upi a-wata
sea-REF $\quad \mathrm{R}_{1}$-through 1SG-walk
'I walked through the sea.' (VLB, II, 48)

Launey (1994, 2002, 2004) suggested the OMNIPREDICATIVE character of Classical Nahuatl and consequently described a language type in which members of all major open word classes may function equally and without derivation as predicates, and in which the predicative use is primary, while the referential is syntactically derived ${ }^{\boxed{\nabla}}$. TUP and some TG languages have been analyzed as being of the omnipredicative type (Queixalós 2006; Magalhães et al. 2019$)^{9}$. The system described by Launey is simply one of the root expression types found cross-linguistically, listed in Haspelmath (2021b), and since the terminology in Haspelmath (2021b) better connects all coexpression types, relating them to each other in a consistent manner, I will henceforth avoid the term omnipredicative.

### 4.3 Noun classes

Before presenting the noun classes, it is necessary to present the sets of person indexes (possessor and cross-index markers) and the so called relational morphemes, since they often occur together (4.3.11) and (4.3.2).

[^45]
### 4.3.1 Argument indexes and pronouns

Tupinambá indexes arguments through bound InDEXES (See Section 6.3). Even though the distinction between affixes and clitics is gradient (Zwicky and Pullum 1983; Haspelmath 2002, 2011), verbal argument indexes are here considered to be prefixes, while possessor markers are considered to be clitics, because they combine not only with simple nominals but also with RPs (see examples ([125a) and ([26a) $)^{\boxed{\pi}}$.

Like most Tupían languages, TUP uses the same set of argument indexes ${ }^{\square 0}$ in the form of prefixes for marking $\mathrm{A} / \mathrm{Sa}$ (Set II) on verbs, and clitic person indexes for indexing possessors and the complement of postpositions (Set I, see Rodrigues and Cabral 2012, 543-552). Argument indexes and free person forms are given in 4.3.

|  | Set I | Set II | Set III | Set IV | Free Forms |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1SG (1) | fe= | a- | wi- |  | ise |
| 2SG (2) | ne= | ere- | e- | oro- | ene |
| 3SG/PL (3) | (see Section 4.3.2) | o- | o- |  | (aPe) |
| 1EXCL.PL (13) | ore $=$ | oro- | oro- |  | ore |
| 1INCL.PL (12) | jane $=$ | ja- | ja- |  | jane |
| 2PL (23) | pe= | pe- | peje- | opo- | pe?ẽ |
| Generic index (123) | (ase) |  |  |  | ase |

Table 4.3: Tupinambá person markers

Table 4.3 shows that TUP has a system of six persons in cross-referencing prefixes and personal pronouns. Two numbers are distinguished for two persons (first and second), but not for the third. The first person plural distinguishes between two forms, which include or exclude the hearer. Personal cross-referencing on prefixed nouns is used to indicate possessor (Set I).

Members of Set I are proclitic markers which attach to lexical roots (possessed roots only), postpositions, and RPs (see examples $(\mathbb{2 5} \mathrm{b})$ and ( $\mathbb{2} 6 \mathrm{a}, \mathrm{b})$ ). Contrary to what has been said in the literature (Jensen 1998a; Rodrigues 2010b), they are not absolutive markers. Rather, these clitics are either indexes on postpositions (see Section [.4) or possessive

[^46]indexes (see Dietrich 2001, 2017b). As clitics, they cannot be stressed, they cannot be focused, and require a host to attach to (see Spencer and Luís 2012).
a. PemaPenwar
pe= $\varnothing$-maPenwar
2PL=R1-remember
'You remember / there is your remembrance.' (Anch., Arte, 20v)
b. $\int \mathrm{eai} \beta$
$\int e=\varnothing-a i \beta$
$1 \mathrm{SG}=\mathrm{R}_{1}$-impaired
'I am impaired / there is my impairment.' (VLB, I, 83)
c. NekoPema
ne $=\varnothing$-ko?em-a
2SG=R1-morning-REF
'Your morning.' (see Cantigas, IV)
d. Neru $\beta$
ne $=\mathrm{r}-\mathrm{u} \beta$
$2 \mathrm{SG}=\mathrm{R}_{1}$-father
'You have a father / There is your father.' (FA, 39)

While members of Set I clearly have their origin in the independent pronouns (see Table 4.3) - they are reduced forms of the independent pronouns - third person markers constitute an exception. It might well be possible that these were part or related to a series of person markers that have been lost (see Gildea 2002). These morphemes will be dealt with in Section 4.3.2. For now, it will be enough to call attention for the fact that while examples (【3) with first or second person are possessive RPs, formed by three morphemes: [possessor + relational + possessed], examples (Ш4) are formed by two: [relational + possessor]. This indicates that the relational is not a third person index but indicates its absence within the constituent.
(114) a. ImaRenwar
i-maPenwar
$\mathbf{R}_{\mathbf{2}}$-remember
'He remembers.' (AA, 20v)
b. $\mathrm{Tu} \beta \mathrm{a}$
t-u $\beta$-a
$\mathbf{R}_{\mathbf{2}}$-father-REF
'His father.' (Araújo, 4)

Set II markers are used to instantiate the core arguments, actor (ACT) or undergoer (UND), of transitive or intransitive verbs.
a. Jũ rupi awata
jũ- $\varnothing \quad$ r-upi a-wata
field-REF $\mathrm{R}_{1}$-through 1SG-walk
'I walked through the fields.' (FA, 123)
b. Nojanduj moropotára
na-o-i-andu $\beta$-i moropotar-a
NEG-3-R2-feel-NEG lust-REF
'She did not feel lust.' (Poemas, 182)
c. $A \beta e \beta u j$
a- $\beta$ ее $\beta$ иј
1SG-float
'I float.' (VLB, II 21)
d. São Pedro itayapema osekij
São Pedro itaŋapem-a o-s-ekij
Saint Peter sword-REF 3-R2-pull.out
'Saint Peter pulled out the sword.' (Araújo, 54v)

Set III markers are coreferential indexes used in core-junctures with the gerund (see Chapter [10) and should not be associated with switch-reference (see Van Valin In and LaPolla 1997, 287-294, Hammond 2015, van Gijn and Hammond 2016) (see Section (10.1.2). They are nominal in origin and must still be analyzed as such. As evidence for the nominal origin of Set III indexes, one may take their etymological connection with possessor markers in languages such as Mawé and Awetí (cf.Meira and Drude (2013, 4-5) and Iensen (1998b)). Table 4.4 shows possessor markers in Mawé (Silva et al. 2010) and Awetí (Reiter 2012), and coreferential markers in Tupinambá.

Set IV are portmanteau indexes ${ }^{[\boxed{D 2}}$, encoding features of two arguments of a verbal

[^47]|  | Mawé Poss. | Awetí Poss. | Tup. Corref. (Set III) |
| :---: | :---: | :---: | :---: |
| 1SG | $\mathrm{u}(\mathrm{j})-$ | $\mathrm{i}-$ | wi- |
| 2SG | $\mathrm{e}-$ | $\mathrm{e}-$ | $\mathrm{e}-$ |
| 1EXCL.PL | uru- | ozo- | oro- |
| 1INCL.PL | aj- | kaj- | jere- |
| 2PL | ej- | ePi- | peje- |
| 3CRF | to- | o- | o- |

Table 4.4: Possessor markers in Mawé, Awetí, and coreferential markers in Tupinambá (Set III)
predicate through a single morpheme (Cysouw 2003, 18-19 and Trommer 2007). TUP has two portmanteau markers: oro- $1(\mathrm{SG} / \mathrm{PL}) \rightarrow 2 \mathrm{SG}(\mathbb{1})^{\boxed{[1]}}$ and opo- $1(\mathrm{SG} / \mathrm{PL}) \rightarrow 2 \mathrm{PL}$ (Ш7). As shown by Anchieta (1595, 12,37), the independent pronoun was used to disambiguate between the singular (Ш7a) and plural (Ш7b) of the first person actor:

| (116) | Oropisi $\beta$ | umã jandikarai $\beta$ a pupe |
| :--- | :--- | :--- | :--- |
| oro-pisí $\beta$ | umã jandi-karai $\beta$-a $\varnothing$-pupe |  |
| 1.ACT.2.UND.SG-anoint already oil-holy-REF | R $_{1}$-POSP |  |
|  | 'I have already anointed you with blessed oil.' (Ar., 141) |  |

(117) a. Ise opojuka
ise opo-juka
I 1.ACT.2UND.PL-kill
'I kill you.' (AA, 12)
b. Ore opojuka
ore opo-juka
We.EXCL 1.ACT.2.UND.PL-kill
'We kill you.' (AA, 12)

Independent pronouns alone constitute RPs which can be coindexed with the arguments, as in (Ш8) (see section [6.3). Their use is often pragmatically motivated, e.g., for topicalization or contrastive focus (see section (9). Note that only the RP coindexed with the actor can be coded as an independent pronoun when portmanteau indexes $(1 \rightarrow 2)$ are used.

[^48](118) Ise orojuka
ise oro-juka
I 1.ACT.2.UND.SG-kill
'(It is) I (who) kill you.' (FA, 9)


Figure 4.2: Independent pronoun in actor function with portmanteau argument index

There is no independent pronoun for third person; a?e (see Table 4.3) is a demonstrative (see Section 8.2.1.1), but there is a free form which requires the third person index $o-$, ase. Rodrigues (1990) treats ase in terms of a generic marker, including first, second and third persons. In (Ш9), ase is given as a free form (referent of the third person pronoun), as in (Ш9a). It is given as an argument of a postposition in (Ш9b), and as a possessor index in (Ш9С).
a. Tupã omanõ, memetipo ase omanõßo

Tupã o-manõ memetipo ase o-manõ- $\beta$ o
God 3-die even.more we.all 3-die-GER
'(If) God died, even more we are to die.' (FA, 163)
b. $\mathrm{A} \beta \mathrm{a}$ aßape ase rese Tupã moŋetasáramo sekow? $\mathrm{a} \beta \mathrm{a} \quad \mathrm{a} \beta \mathrm{a}=\mathrm{pe}$ ase r-ese Tupã mojeta-sar-ramo s-eko-w person perso=Q we.all $R_{1}$-because God pray-NMZL ${ }_{A G}$-TRSL $R_{2}$-be-NFOC 'Who prays to God because of us? / Who are those who pray to God for us? (Araújo, 23v)
c. Marã ePipe ase rußa ase si ase
marã e- $\mathrm{i} i=$ pe ase $\mathrm{r}-\mathrm{u} \beta-\mathrm{a}$ ase $\varnothing$-si- $\varnothing$ ase
how 3-say-Q our $\mathrm{R}_{1}$-father-REF our $\mathrm{R}_{1}$-mother-REF our
rerokara supe?
r-erok-sar-a supe
$\mathrm{R}_{1}$-baptize- $\mathrm{NMLZ}_{\mathrm{AG}}-$ REF to
'How does our father, our mother say to our.' (Araújo, 82)

Ase is often interpreted as an impersonal form, as in ([20)
a. Oimoete $\beta$ e ase amõamõ Para, ipupe opora $\beta \dot{i} \beta$ kie? 1 ima o-i-mo-ete- $\beta \mathrm{e}$ ase amõ-amõ ?ar-a i-pupe opora $\beta i \beta k i-e$ im-a 3-R2-much-also we.all some-RED day-REF $\mathrm{R}_{2}$-in work-PRIV-GER
'Do we / Does one honor other days by not working (on these days)?' (Araújo, 12v)
b. Nane rako ase jeupiri ißakipene, oposijusu nane rako ase je-upiri ißak-ipe=ne o-posij-usu thus $\mathrm{EV}_{\mathrm{FH}}$ we.all RFLX-elevate sky-EPEN-LOC=FUT CORF-weight-big rejtikire
r-ejtik rire
$\mathrm{R}_{1}$-throw after
'Thus, indeed, one/we all will rise to heaven after throwing away his/our burden.'
(Araújo, 169v)

Nonetheless, Anchieta (1595, 36v) explicitly says that the impersonal construction requires the first person plural inclusive. Examples are given in ([12I).
a. Jajuka
ja-i-juka
1PL.INCL-R2-kill
'One kills (it/him/her/them)' (AA, 36v)
b. Nomenari: emonã tekoarwera jaipeRa n-o-menar-i emonã t-eko-ar-wer-a ja-i-pe?a NEG-3-marry-NEG thus $\mathrm{R}_{2}$-be-NMLZ AG -PST-REF 1PL.INCL-R 2 -separate 'He did not marry: (may) one separate the one who acted this way (marry against his/her own will)' (Araújo, 128)

### 4.3.2 Relational Markers

In Tupían studies, the morphemes referred to by the name of relational are a distinct feature of five of the ten branches of the family (Rodrigues and Cabral [2012, 496-499) ${ }^{[4]}$.

[^49]Besides Tupían languages, they are found in some Jê languages (Cabral and da Costa 2004; Ribeiro [2004) ${ }^{[\boxed{12}}$, in Jabuti and Chiquitano (Ribeiro 2011), and in Cariban languages (Rodrigues (2009). These morphemes define, according to their allomorphs, the noun classes in Tupinambâ ${ }^{\text {[l] }}$. Possessed roots, i.e., those that combine with possessor indexes, are members of either of Classes I or II. Class III is that of unpossessed roots, whose members cannot be combined with possessor indexes. Table $(4.5)^{1 \pi 7}$ illustrates all three root classes:

| Class | $\mathrm{R}_{1}$ | $\mathrm{R}_{2}$ | $\mathrm{R}_{4}$ | $\mathrm{R}_{3}$ | Examples |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Ia | $\varnothing$ - | i- | $\varnothing$ - | O- | akay 'head', si 'mother', sem 'leave', ker 'sleep' |
| Ib | $\varnothing$ - | i- | m- | O- | po 'hand', posay 'medicine', pita 'stay' |
| IIa | r- | s- | t- | O- | esa 'eye', asem 'yell', enone 'in front of', ePõ 'die' |
| IIb | r- | t- | t- | O- | $u \beta$ 'father', apir 'son', ur 'come', u $\beta$ 'lie down' |
| IIc | r- | s- | $\varnothing$ - | O- | ok 'house', uPu $\beta$ 'arrow' |
| IId | r- | s- | ( $\mathrm{V} \rightarrow \varnothing$-) | O- | ape 'path', (e)kuj 'gourd', (e)pino 'fart' |
| III | - | - | - | - | kwarasi 'sun', i $\beta$ irá 'tree', tapiPir 'tapir' |

Table 4.5: Tupinambá relational markers: $\mathrm{R}_{1}$ marks contiguity , $\mathrm{R}_{2}$ marks non-contiguity, $R_{3}$ indicates coreference, and $R_{4}$ indicates that the possessor is human

Some roots belonging to class IId have an alternate form with an initial $e$, which is a trace of a prefix of alienable possession, still found in Mundurukú (Giomes 2006), Mawé and Awetí (Meira and Drude 2013), among others.

|  | 1SG | 3 |
| :---: | :---: | :---: |
| Ia | $\int \mathrm{e}=\varnothing$-akay'my head' | i-akay 'his head' |
| Ib | $\int \mathrm{e}=\varnothing$-pó 'my hand' | i-pó 'his hand' |
| IIa | fe=r-esá 'my eye' | s-esá 'his eye' |
| IIb | fe=r-u $\beta$ 'my father' | t-u $\beta$ 'his father' |
| IIc | fe=r-ók 'my house' | s-ok 'his house' |
| IId | fe=r-ekuj 'my gourd' | s-ekuj 'his gourd' |

Table 4.6: TUP noun classes. Examples in first person singular and third person

Functionally, relational markers mark the contiguity $\left(\mathrm{R}_{1}\right)$ or non-contiguity $\left(\mathrm{R}_{2}\right)$ of a head - any possessed root or a postposition - and its dependent (Rodrigues 1996a; Cabral $\left[200()^{188}\right.$. The relational of contiguity $\left(\mathrm{R}_{1}\right)$ thus has a twofold function: the flagging of con-

[^50]tiguity and creating a dependency relation, while the relational of non-contiguity signalizes the absence of a dependent in the syntagma.

Many authors working on TG languages have treated the relational of non-contiguity $\left(\mathrm{R}_{2}\right)$ as an index of third person argument (Jensen 1999; Couchili et al. 2002; Neiva Praça 2007; Rose 2011; Copin 2012; Magalhaes and de Mattos 2014). I consider this view to be wrong. The distribution of first and second person bound indexes clearly shows that they must be traced back to free pronouns, i.e., personal forms in reference phrase positions (Queixalós 2022). However, this does not apply to $i$ - $\left(\mathrm{R}_{2}\right)$, since it is plausible that it already existed when the first and second person free indexes occurred internally and bound (see Gildea 20(02). See examples ([125) and ([126).

The contiguity and non-contiguity of a postposition and its dependent are illustrated in (IL22) with $\mathrm{R}_{1}$ and $\mathrm{R}_{2}$ respectively.
(122) a. Nerese
ne=r-ese
$2 \mathrm{SG}=\mathbf{R}_{\mathbf{1}}$-because
'Because of you.' (see Figueira, 124)
b. Sese
s-ese
$\mathbf{R}_{\mathbf{2}}$-because
'In him.' (see Araújo, 60)

The contiguity or non-contiguity of possessor and possessed roots is illustrated in ([123). If the possessor (dependent) is not the preceding element, in that it is outside the constituent or absent, then $\mathrm{R}_{2}$ is used:
(123) a. Isi
i-si- $\varnothing$
$\mathbf{R}_{2}$-mother-REF
'His mother.' (Poemas, 184)
b. $\mathrm{Tu} \beta \mathrm{a}$
t-u $\beta$-a
$\mathbf{R}_{\mathbf{2}}$-father-REF
Cabral (2000); Gildea (2002); Meira and Drude (2013).
'His father.' (see Araújo, 5)
c. $\int$ esi
$\int \mathrm{e}=\varnothing$-si- $\varnothing$
$1 \mathrm{SG}=\mathbf{R}_{\mathbf{1}}$-mother-REF
'My mother.' (Araújo, 33v)
d. Soka
s-ok-a
$\mathbf{R}_{\mathbf{2}}$-house-REF
'His house.' (FA, 78)

With a contiguous nonpronominal possessor, an $\mathrm{RP}, \mathrm{R}_{1}$ is employed (II24):
a. Anas roka

Anas r-ok-a
Anas $\mathbf{R}_{1}$-house-REF
‘Anas’ house.' (see Araújo, 55)
b. $\mathrm{K}^{\mathrm{w}}$ aras $\dot{\mathrm{i}}$ sema $\beta$ a koti
$\left[\mathrm{k}^{\mathrm{w}} \operatorname{arasi}-\varnothing \varnothing\right.$-[sem-a $\beta-\mathrm{a} \quad \varnothing$-koti- $\left.\left.\varnothing\right]\right]$
sun-REF $\quad \mathbf{R}_{\mathbf{1}}$-exit-NMLZ-REF $\quad \mathbf{R}_{\mathbf{2}}$-side-REF
'The side of the rising of the sun.' (Araújo, 3)
c. Pero rekoa $\beta$ a

Pero r-eko-a $\beta$-a
Pero $\mathbf{R}_{2}$-act-NMLZ-REF
‘Pero’s job.' (see Araújo, 5)

The examples in $(\mathbb{1 2 5})$, ([26) , and ([27) are illustrative ${ }^{\boxed{102}}$. In the a) examples, the prefix of contiguity $(r-)$ indicates that the dependent is adjacent (immediately to the left) to the head, while the b) examples have the non-contiguous marker ( $s-, i$-) which indicates that the dependents are not adjacent to the head, thus implying a constituent discontinuity. The square brackets indicate a syntagma. Note that in ( $\mathbb{2} 5 \mathrm{~b}$ ) and ( $\mathbb{2} 2 \mathrm{a}$ a,b), the clitic markers attach to the RP.

$$
\begin{array}{lll}
\text { a. } & \int \mathrm{ePedro} & \text { rawsume }  \tag{125}\\
& {[\mathrm{Je}=\text { Pedro }} & \mathbf{r} \text {-awsu } \beta \text {-me }] \\
& 1 \mathrm{SG}=\text { Pedro } & \mathbf{\mathbf { R } _ { \mathbf { 1 } } \text { -love-CLM }}
\end{array}
$$

[^51]'Because I love Pedro.' (Arte, 37)
b. Pedro fesausume
[Pedro] [ $\mathrm{f}=\mathbf{=} \mathbf{s}$-awsu $\beta$-me]
Pedro 1SG= $\overline{\mathbf{R}_{2}-\text { love-CLM }}$
'Because I love Pedro.' (Arte, 37)
a. JePedro jukáreme
[ $\mathrm{fe}=$ Pedro $\quad \varnothing$-juka-reme]
$1 \mathrm{SG}=$ Pedro $\mathbf{R}_{\mathbf{1}}$-kill-CLM
'If I kill Pedro.' (Arte, 37)
b. Pedro Jeijukáreme
[Pedro] [ $\mathrm{Je}=\mathbf{i}$-juka-reme]
Pedro 1SG= $\overline{\mathbf{R}_{2}}$-kill-CLM
'If I kill Pedro.' (Arte, 37)
a. $\mathrm{K}^{\mathrm{w}}$ ese ka a rupi owatá $ß o$ Pedro ropári $\mathrm{k}^{\mathrm{w}}$ ese kaPa- $\varnothing$ r-upi o-wata- $\beta$ o [Pedro $\mathbf{R}_{\mathbf{1}}$-opar-i] yesterday forest-REF $\mathbf{R}_{1}$-POSP 3-walk-GER Pedro $\mathbf{R}_{\mathbf{1}}$-get.lost-NFOC
'Yesterday, Pedro got lost walking through the forest.' (FA, 95)
b. Kwese kaª rupi Pedro owatáßo sopari $\mathrm{k}^{\mathrm{w}}$ ese kaPa- $\varnothing$ r-upi [Pedro] o-wata- $\beta$ o [s-opár-i] yesterday forest-REF $R_{1}$-POSP Pedro 3-walssk-GER $\mathbf{R}_{2}$-get.lost-NFOC
'Yesterday, Pedro got lost walking through the forest.' (FA, 95)

In (128)a), the relational of contiguity $\varnothing$ - signalizes that $\operatorname{feru} \beta a$ is the dependent adjacent to the head mongetaw. In ( 128 b ), the dependent of the head mongetaw is not adjacent, signalized by the relational of non-contiguity $i$. Its dependent, $\int e r u \beta a$, is in the first position. The head is given underlined, while the brackets mark the syntagma:

[^52]Of syntactic relevance is the fact that contiguity implies that dependent and head are inside a syntagma ( $\mathbb{\amalg 2 9}$ ), while the absolute relational $\left(\mathrm{R}_{4}\right)$ implies the opposite, so that in (I30), $t$-a Pira functions as an apposition.
(129) Tupã ra?ìra
[Tupã r-aPir-a]
God $\mathbf{R}_{\mathbf{1}}$-son-REF
'Son of God.' (DC, 166)
(130) Tupã taPira
[Tupã] [t-a?ir-a]
God $\mathbf{R}_{4}$-son-REF
'God (the) son.' (DC, 131)

In certain syntactic environments, it becomes impossible to identify the possessor, as there is no referent, but there is a dependency relation with human beings in general expressed syntactically (Rodrigues 1996a, 96). This is signaled by $\left(\mathrm{R}^{4}\right)$. Compare the pairs in (II31) and (II32).
a. MoPir
m-poPir
$\mathbf{R}_{4}$-necklace
'Necklace (of a person).' (see Léry, 346)
b. Popir
po?ir
necklace
‘Necklace.' (VLB, II, 14)
a. Tete
t-ete
$\mathbf{R}_{4}$-body
'Body (of a person).' (see Léry, 346)
b. Sete
s-ete
$\mathbf{R}_{\mathbf{2}}$-body
'Its body (of an animal).' (VLB, II, 14)

The relational $\mathrm{R}_{3}$ indicates that the dependent of a head is coreferential with the subject of the main clause, as in ([33). Compare ( $\mathbb{L 3} 3 \mathrm{~B})$ and ([134) for coreferential and non-coreferential possession.
a. $\begin{array}{llll}\text { OatiPi } \beta a & \text { ri } & \text { krusa } & \text { osupi } \\ \text { o-atiPi } \beta \mathrm{a} & \varnothing \text {-ri } & \text { krusa- } \varnothing & \text { o-s-upir } \\ \text { R3-shoulder } & \mathrm{R}_{1} \text {-POSP } & \text { cross-REF } & \text { 3-R2-lift }\end{array}$
'He lifts the cross on his own shoulder.' (Poemas, 122)
b. OaPira

0-aPir-a
$\mathbf{R}_{3}$-SOn-REF
'His own son.' (see Araújo, 25v)
(134) TaPira
t-aPir-a
$\mathbf{R}_{\mathbf{2}}$-son-REF
'His (someone else’s) son.' (see Araújo, 14v)

Another use of the relational marker of non-contiguity is to index the undergoer third person argument of a transitive verb, as in (1135a):
a. $\operatorname{Aik}^{\mathrm{w}} \mathrm{a} \beta$
$a-i-k^{w} a \beta$
1SG-R2-thank
'I thanked him.' (VLB, I, 23)
b. Eresekar
ere-s-ekar
2SG-R2-seek
'You seek him.' (see D'Evreux, 144)

Tupinambá lacks third person possessor markers and pronouns ${ }^{20}$. The relational of non-contiguity $\left(\mathrm{R}_{2}\right)$ is not a third person marker, in spite of its possible origin as a third person index (see Rodrigues and Cabral 2012). The independent pronoun for third person is actually a demonstrative (see Section 区.ID). One more argument for the relational analysis is the occurrence of relational morphemes in languages of the Jê and Cariban families,

[^53]where these are best viewed as relationals rather than third person indexes (see Rodrigues $2009)^{[1]}$.

The possessor character of $R_{2}$ has been suggested by Rose (2018), and as noted in Cabral (2001b), alternative analyses to the relational hypothesis do not agree among themselves as far as its status is concerned. Meira and Drude (2013) also argue in favor of the non-pronominal character of the relational of non-contiguity, arguing that $i$ and $o$ are not clitics like members of Set I, which can be etymologically associated with the independent pronoun (see Set I and the independent pronouns in Table 4.5). ${ }^{[2]}$. An analysis by Gildea (2002) suggests that Proto-Tupí-Guaraní displays marking patterns stemming from competing pronominal systems, the oldest of which are to be seen in the $i\left(\mathrm{R}^{2}\right)$ and $o\left(\mathrm{R}^{3}\right)$ morphemes, indicating that the coreferential and non-coreferential opposition was already present in the language at an early stage (see Meira and Drude 2013, 5, note 4). He (Gildea) believes that this (original) system has been lost, leaving us unable to reconstruct it, and the relational morpheme(s) would be traces of this partially lost system (see also Jensen 1990); Schleicher 1998).

### 4.3.3 Adverbs

Adverbs are one-place predicates which take a logical structure or part of a logical structure as their argument. The sentence yesterday John gave Patty a flower in the garden would be represented as in ([36):

```
(136) give \(\left[\mathrm{do}^{\prime}(\mathrm{w}, \varnothing)\right]\) CAUSE [BECOME have \(\left.{ }^{\prime}(\mathrm{x}, \mathrm{y})\right]\)
in \(\quad\) be-in \({ }^{\prime}(x, y)\)
yesterday \(\quad\) yesterday \(^{\prime}\) ( x )
```

$\left\langle_{\text {IF }}\right.$ DEC $\left\langle_{\text {tns }}\right.$ PST $\left\langle\mathbf{y e s t e r d a y ~}^{\prime}\right.$ (be-in' (garden, [do ${ }^{\prime}$ (John, $\varnothing$ )] CAUSE [BECOME
have' (Patty, flower)]])) $\rangle>\rangle$

[^54]Although this chapter intends to explicate the question of lexical categories, treating mainly what is traditionally called 'noun', 'adjective', and 'verb', it is important to look at 'adverbs' because of their importance as modifiers at different levels of the LSC, and because of their lexical manifestations in TUP.

The label 'adverb' is an elusive one, as it refers to words encoding a range of features, including manner, spatial/temporal deixis, and modality, and is also used for encoding speech act, and marking discourse. Thus, it is used in a wide sense (see Hallonsten Halling 2018). Different language descriptions often describe adverbs differently and, as a consequence, it is difficult to find cross-linguistically comparable data on any given type of adverb (see Crott 2022a).

Adverbs constitute an open class in TUP since, apart from real adverbs, lexical roots can also function as adverbs (peripheral modifiers) as long as the semantics allow it.For examples of this, see ([37), where the lexical root atã functions as an attributive noun modifier ([137a), attributive modifier ( 137 b ), adverb ( 1437 d$)$, and argument of a postposition (II37d).
a. Nasatãkatuj maira
n-s-atã-katu-i maira
NEG-R ${ }_{2}$-strong-INTS-NEG Frenchman
'The Frenchman is not very strong.' (Teatro, 18)
b. Kunumĩwasuatãatã
kunumi-wasu-atã-atã- $\varnothing$
boy-AUG-strong-strong-REF
'Very strong young men.' (Léry, 338)
c. AjePenatã
a-je Pe - $-\mathrm{atã}$
1SG-speak-strong
'I spoke strongly.' (VLB, 1, 40)
d. Jeratãyatu pupe
$\int \mathrm{e}=\mathrm{r}$-atã-katu- $\varnothing \quad \varnothing$-pupe
$1 \mathrm{SG}=\mathrm{R}_{1}$-strong-good-REF $\mathrm{R}_{1}$-POSP
'With my strength.' (Teatro, 130)

Examples of adverbs include $a \beta$ é 'also', ajßiõte 'lightly', ewimẽ 'there', $j a$ 'usually', keremẽ 'quickly', kwese 'yesterday', and matutejé 'immensely'. Examples of lexical roots that can be used as adverbs include aPe 'this, here', katu 'be good, well', and puku 'length, extensively, long'

Example ([138) shows one adverb in the periphery of the clause and one adverbial PP in the periphery of the core.
(138) $\mathrm{K}^{\mathrm{w}}$ arasi nipo oßera putunusu $\mathrm{k}^{\mathrm{w}}$ aßire
$k^{\mathrm{w}}$ arasi- $\varnothing$ nipo $\quad$ o- $\beta$ era $\beta$ putun-usu- $\varnothing \quad \mathrm{k}^{\mathrm{w}}$ a $\beta$-rire
sol-REF certainly 3 -shine night-big-REF pass-POSP
'The sun certainly shines after the great night passes.' (Poemas, 142)

Adverbs may modify different layers of the LSC. Clausal modifiers include speech act modifiers (honestly), evidential or epistemic modifiers (evidently, allegedly), and judgment (appallingly, unfortunately). Core modifiers include temporal modifiers (yesterday, tomorrow) and manner modifiers (quickly, slowly, deliberately, carefully, violently). Nuclear modifiers include aspectual modifiers (completely, continuously).

Since adverbs modify different levels of the LSC, they tend to appear closer to the layer they modify (see Van Valin .Jr [2005, 19-21).

[^55]
## Basic Clause Patterns

Tupinambá is a head-final and head-marking language, meaning that the core arguments are cross-referenced on the arguments by bound indexes which are indexed to the predicate in the SOV word order ${ }^{\square}$ (see Van Valin Jr 1987, 2013). The subject of intransitive predicates $(\mathrm{S})$ and the subject of transitive predicates $(\mathrm{A})$ are indexed by the same set of person indexes in independent clauses, therefore exhibiting a nominative-accusative alignment pattern. Independent pronouns or RPs semantically related to the arguments can seemingly - because not all possible orders are attested - appear in any order in relation to the core, a fact already noted by Anchieta ( 1595,37 ) (see Section [5.6). Adjuncts tend to follow the core, but this is not obligatory.

RRG defines transitivity according to the number of macrorole arguments a predicate has, not the number of syntactic arguments (Van Valin In 2005, 60-67). Predicates with one core argument are termed M-intransitive, and those with two or three (ditransitive) are M-transitive (see Section [.]). ${ }^{\boxed{\square}}$ The head-final and head-marking character of TUP is illustrated in Figure 5.1, where the core, containing the nucleus and the core arguments, exhibits the fixed order of these elements.

In the template in Figure 5.1, the core contains three arguments. The first argument (v) corresponds to the sole argument of an intransitive verb, while the second argument

[^56]

Figure 5.1: A core template with three core arguments for TUP
$(x)$ corresponds to the undergoer of a transitive verb. Both $v$ and $x$ are pre-nuclear. The third argument $(z)$ corresponds to the non-macrorole core argument (see Section [5.3]), which normally occurs post-nuclear.

### 5.1 M-intransitive Verbs

Each semantic verb class described in Section 3.3 has M-intransitive examples. For activity verbs, the single macrorole is the actor (A). Stative verbal predication is not common in Tupinambá. Intransitive states are expressed mostly by non-verbal predication, as illustrated by the nominal predicates in ( $\mathbb{1 3 4}$ ) (see Section [5.5)
(139) State: undergoer PSA
a. Sekane?õ
$\int \mathrm{e}=\varnothing$-kane? õ
$1 \mathrm{SG}=\mathrm{R}_{1}$-tiredness
'I am tired.' (VLB, I, 65)
exist $^{\prime}$ ([have.as.part ${ }^{\prime}$ (1SG, kane?õ)]
b. Seakim
$\int \mathrm{e}=\varnothing$-akim
$1 \mathrm{SG}=\mathrm{R}_{1}$-wet
'I am wet / there is my being wet.' (VLB, II, 40)
exist $^{\prime}$ ([have.as.part' ${ }^{\prime}$ (1SG, akim)]

Examples of activity verbs are given in (140); examples of achievement are given in (I4II). Examples of accomplishment are given in ([43). A semelfactive active verb is shown in (142).
(140) Activity verbs: actor PSA
a. Ajãkatune
a-jã-katu=ne
1SG-run-INTS=FUT
'I will run a lot.' (AT, 25)
$\mathbf{d o}^{\prime}\left(1 \mathrm{SG},\left[\mathbf{r u n}^{\prime}(\mathrm{I})\right]\right)$
b. Jũ rupi awata
jũ- $\varnothing \quad$ r-upi a-wata
field-REF $\mathrm{R}_{1}$-through 1SG-walk
'I walked through the field.' (FA, 123)
do $^{\prime}\left(1 \mathrm{SG},\left[\right.\right.$ walk $\left.\left.^{\prime}(\mathrm{I})\right]\right)$
c. Eraso ko $\beta$ aRe neru $\beta$ ape
e-era-so ko $\beta$ a?e ne=r-u $\beta=$ pe
2SG.IMP-SCAU-go DEM $\quad 2 \mathrm{SG}=\mathrm{R}_{1}$-father=LOC
'Take this to your father.' (FA, 121)
$\left[\mathbf{d o}^{\prime}(2 \mathrm{sG}, \varnothing)\right]$ CAUSE $\left[\mathbf{d o}^{\prime}\left(\mathrm{ko} \beta a \mathrm{e} e,\left[\mathrm{so}^{\prime}(\mathrm{ko} \beta \mathrm{a} 2 \mathrm{e}]\right)\right]\right.$ \& INGR be-toward ${ }^{\prime}$ (koßaPe, neru $\beta \mathrm{a})$ \& INGR be-toward ${ }^{\prime}$ (2SG, nerußa)
(141) Achievement verbs: undergoer PSA
a. i $\beta$ ira opuruk
i $\beta$ ira- $\varnothing$ o-puruk
tree-REF 3-snap
'The tree snapped.' (see VLB, I, 127)
INGR snapped ${ }^{\prime}$ (3sg [the tree])
b. OPar mune
o-Par mune
3-fall trap
'The trap fell.' (VLB, I, 63)
INGR fall' (3sg [mune])
c. Open $\dot{i} \beta$ ira
o-pen i $\beta$ ira- $\varnothing$
3-break stick-REF
‘The stick broke.' (see VLB, II, 92)
INGR do $^{\prime}$ (3[i $\beta$ ìra], [break ${ }^{\prime}(3)[\dot{i} \beta$ ìrá $\left.\left.]\right]\right)$
(142) Semelfactive verb: actor PSA

Ajemoesa $\beta$ ik
a-je-mo-esa- $\beta \mathrm{j} \mathrm{ik}$
1SG-RFLX-CAUS-eye-blink
'I blinked.' (VLB, I, 79)
SEML do ${ }^{\prime}$ (1sG, [blink ${ }^{\prime}$ (I)])
(143) Accomplishment verb: undergoer PSA
a. $\mathrm{A} \beta \mathrm{a}$ omanõ
$a \beta a-\varnothing \quad$ o-manõ
man-REF 3-die
'A man died.' (Fig., Arte, 69)
BECOME dead' (3sg [man])
b. Atujuk
a-tujuk
1SG-rotten
‘I rotted.' (VLB, I, 38)
BECOME rotten' (1SG)

Stative predicates in TUP can be expressed by two different constructions: verbal predication or existential predication (see Dixon 1979, 1994). Table (5.لD) illustrates pairs of antonyms that are expressed by different constructions. Note that $u$ ? $u$ 'cough' and pitu 'breathe' are not seen as activities in TUP (see Holisky 1987), which are always expressed with Set I indexes (see Table 4.3). While posij 'be heavy' is expressed through nominal syntax, $\beta e \beta u j$ 'fluctuate, be light' is expressed through Set II markers (verbal syntax).

Examples (1444) in TUP and (1455) in English are illustrative of the language-specific character of the semantics of lexical roots. The former requires a non-prototypical predication (see Section [5.5), while the latter is expressed through verbal predication. The lexical decomposition of these predicates is clearly different (see Section (3.3).
(144) $\int e u P u$
$\int e=\varnothing-u$ u $u$
$1 \mathrm{SG}=\mathrm{R}_{1}$-cough
'I cough (there is my cough).' (VLB, I, 62)
be' (I, [cough'])

|  |  | Set II markers | Set I markers |
| :---: | :---: | :---: | :---: |
| heavy | posij |  | x |
| light | $\beta \mathrm{e} \beta \mathrm{uj}$ | x |  |
| dry | tinij | x |  |
| wet | akim |  | x |
| hard | atã |  | x |
| soft | memek | x |  |
| remember | maPenwar |  | x |
| cough | upu |  | x |
| steal | mona | x |  |
| vomit | we?en | x | x |
| breathe | pitu |  |  |

Table 5.1: Some active and stative roots in Tupinambá. Colored pairs are antonyms that require different markers for active and stative forms

## (145) English I cough <br> exist $^{\prime}$ ([have.as.part ${ }^{\prime}(1 \mathrm{SG}$, cough $\left.)\right]$

Tupinambá and other Tupí-Guaraní languages have been classified as languages of the split-intransitive type (see Schmidt-Riese 1998; Jensen 1990a; Rose 2009) or activestative (see Seki 1990; Jensen 1998a; Cabral 2009) type. According to this view, intransitive roots receive different argument indexes depending on the Aktionsart, active or stative (see Seki 1990). Note that in Table 5.11 some of the roots that are perceived as activities, e.g., in English, such as remember, cough, breathe, are states in TUP because they are perceived as independent of volition or control by the subject (see Dixon 1994, 78-83).

A special case concerns the verb iko, which can be translated into various meanings in English, such as 'be, live, act, behave, happen'. While these meanings are semantically stative, iko - glossed as 'be' - is always used with Set I indexes, as in the examples below:
a. Aßátepe ojko feoja...?
aßa-te=pe o-iko $\int e=\varnothing$-oja
person-FOC=Q 3-be $1 \mathrm{SG}=\mathrm{R}_{1}$-similar
'Who is like me ...?' (Teatro, 20)
b. Enépe ereiko?
ene=pe ere-iko
you=Q 2SG-be
'How are you? (lit. you? you are/live)' (VLB, II, 113)
c. Peikoete peroßajarape
pe-iko-ete pe=r-oßajar-a-pe
2PL-be-INTS 2PL=R1-enemy-REF-LOC
'Be strong towards your enemies.' (Araújo, 89)

### 5.2 M-transitive Verbs

The semantic verb classes presented above can all be M-transitive. In each case, the verb has an actor macrorole and an undergoer macrorole. Examples of stative verbs are given in (I47), and activity verbs are given in (I49). An example of an M-transitive (causative) achievement verb is given in (I51]), and an example of an M-transitive (causative) accomplishment verb is given in ([152). Examples of activity verbs are given in ([149).
(147) State verb: actor PSA, undergoer DCA

Peipousu $\beta$ imẽ
pe-i-pousu $\beta$ imẽ
2 PL-R2-fear NEG
'Fear it not.' (Araújo, 4)
NOT fear' (2sg, 3sg)
(148) Naik ${ }^{w} a \beta i \quad$ a?e $a \beta a$
$n-a-i-k^{w} a \beta-i \quad$ a?e $a \beta a-\varnothing$
NEG-1SG-R2-know-NEG DEM man-REF
'I do not know this man.' (Araújo, 57)
NOT know ${ }^{\prime}$ (1sG, 3[aRe a $\beta$ a])
(149) Activity verb: actor PSA, undergoer DCA

Asasa
a-s-asa $\beta$
$1 \mathrm{SG}-\mathrm{R}_{2}$-cross
'I cross(ed) it.' (see VLB, II, 67)
do $^{\prime}$ (1SG, [cross ${ }^{\prime}$ (1SG, it)

Eresa?angipe aßamemuã?
ere-s-aPang-i=pe a $\quad a-m e m u a ̃-\varnothing$
2SG-R2-imitate-EPEN=Q man-evil-REF
'Did you imitate the evil men?' (DC, II, 100)
do $^{\prime}$ (2SG, [imitate ${ }^{\prime}$ (1SG, $3[\mathrm{a} \beta$ amemuã $\left.]\right)$
(151) Causative achievement verb: actor PSA, undergoer DCA

Asapi jũ
a-s-api jũ- $\varnothing$
1SG-R2-burn field-REF
'I burned the field.' (VLB, I, 140)
$\left[\mathbf{d o}^{\prime}(1 \mathrm{sg}, \varnothing)\right]$ CAUSE $\left[\operatorname{INGR}\right.$ burnt $\left.\left.^{\prime}(1 \operatorname{sg}[j u \tilde{u}])\right]\right)$
(152) Causative accomplishment verb: actor PSA, undergoer DCA

Aimoiku
a-i-mo-iku
1SG-R2-CAUS-liquid
'I melted it.' (VLB, I, 95)
$\left[\mathbf{d o}^{\prime}(1 \mathrm{sg}, \varnothing)\right]$ CAUSE $\left[\right.$ BECOME melted $\left.\left.{ }^{\prime}(\mathrm{i}-)\right]\right)$

The complete paradigm of a transitive verb is given in Table (5.2):

|  | Verb Conjugation | Translation |
| :--- | :---: | :---: |
| $1 \mathrm{SG} \rightarrow 3$ | a-i-aka $\beta$ | I fight/fought him/her/it/them |
| $2 \mathrm{SG} \rightarrow 3$ | ere-i-aka $\beta$ | you fight/fought him/her/it/them |
| $3 \rightarrow 3$ | o-i-akab | he/she/it/they fight/fought him/her/it/them |
| 1PL.INCL $\rightarrow 3$ | ja-i-aka $\beta$ | we fight/fought him/her/it/them |
| 1 PL.EXCL $\rightarrow 3$ | ore-i-aka $\beta$ | we fight/fought him/her/it/them |
| $2 \mathrm{PL} \rightarrow 3$ | pe-i-aka $\beta$ | you fight/fought him/her/it/them |
| $1 \rightarrow 2 \mathrm{SG}$ | oro-aka $\beta$ | I/we fight you.SG |
| $1 \rightarrow 2 \mathrm{PL}$ | opo-aka $\beta$ | I/we fight you.PL |

Table 5.2: Example of an M-transitive verb paradigm

M-transitive verbs cannot have a first person as an undergoer, or a second person in the case of a non-first person actor. ${ }^{[]}$These cases require a different construction, namely existential predication, as given in ([153). An example such as (153a), literally 'there is

[^57]my calling', would be ambiguous regarding who the caller could be, as it could be either the second or third person: 'there is my killing by you/him'. In order to disambiguate the meaning, the oblique jepe ( $\mathbb{L 5 3} \mathrm{b}$ ) is used in the case of a second person singular, and pejepe is used in the case of second person plural (153c). The fact that the second person plural takes $p e=$, which is associated with the second person plural (see Table 4.3), suggests that jepe (and pejepe) could be oblique markers/pronouns, whose ending could be associated with a locative case ending (see Section [.8).
a. Serenõj
$\mathrm{e}=$ =r-enõj
$1 \mathrm{SG}=\mathrm{R}_{1}$-call
'He calls me.' (see VLB, II, 50)
b. Jejuka jepe
$\int \mathrm{e}=\varnothing$-juka jepe
$1 \mathrm{SG}=\mathrm{R}_{1}$-kill OBL
'You kill me.' (Teatro, 78)
c. Sejuka pejepe
$\int е=\varnothing$-juka pe-jepe
$1 \mathrm{SG}=\mathrm{R}_{1}$-kill 2PL-OBL
'You kill me.' (Arte, 37)

A hierarchy, $1>2>3$, has been postulated for TG languages (see Jensen 1990; Monserrat and Soares 1983; Magalhães 2010; Sekil 1990; Rose 2009, 2015b) whereby the relative ranking of A and U determines which arguments are indexed on the predicate. The hierarchy predicts that if $\mathrm{A}>\mathrm{U}^{\text {II }}$, both arguments are cross-referenced, as in (IL54), where 1 $>3$.
(154) Asawsu $\beta$
a-s-awsu $\beta$
1SG-R2-love
'I love him.' (see Poemas, 102)

In the case of $A$ being lower than $U$, only the highest argument is indexed, as in (II55).

[^58](155) $\int{ }^{j}{ }^{j}{ }^{\mathrm{a}} \mathrm{k}$
fe=r-ep ${ }^{j}$ ak
$1 \mathrm{SG}=\mathrm{R}_{1}$-see
'He/you see(s) me / (there) is sight of me / there is my sight.' (Arte, 37v)

It is possible to simplify the system by considering that TUP transitive constructions only exist with third person undergoers ${ }^{[7]}$ or second person undergoers in the case of a first person actor (portmanteau indexes, i.e., Set IV indexes in Table 4.3). All other cases are expressed with one nominal (possessor) argument only, through nonverbal predication (see Section [5.5). This is a case of Occam's Razor, because there is no reason to postulate two functions for the markers of Set I: that of possessor and that of absolutive markers. Similarly, there is no reason why the same construction must have two functions, that of existential predication and that of a transitive construction with a suppressed subject due to a hierarchical constraint. Note how (156) is a genitive construction, or more precisely, two genitives: 'your killing' and 'my lord' (literally 'my lord's killing of you'). This interpretation was first suggested by Dietrich (2001, 2017a) for other TG languages (see Rodrigues 2011 for Tupinambá).

```
(156) Nejuka Sejara
    ne \(=\varnothing\)-juka- \(\varnothing \quad \int\) e \(=\varnothing\)-jar-a
    \(2 \mathrm{SG}=\mathrm{R}_{1}\)-kill-REF \(1 \mathrm{SG}=\mathrm{R}_{1}\)-lord-REF
    'My lord kills you (lit. my lord's killing of you).' (Arte, 12v)
```

Another argument against the intransitive split due to verbal Aktionsart is the fact that many stative predicates are cross-referenced with markers of Set II indexes (see table 4.3). The examples in (I577) show stative verbs with 'active markers' because specific stative meanings are expressed by active verbs. These are rare, but there are a few examples.

$$
\begin{array}{ll}
\text { a. } & \text { A } \beta \text { e } \beta u j  \tag{157}\\
\text { a- } \beta \mathrm{e} \beta \mathrm{uj} \\
\text { 1sG-be.light }
\end{array}
$$

[^59]

Figure 5.2: Embedded possessive construction
'I am light / I float.' (VLB, II, 21)
b. Ain
a-in
1SG-be.still
'I am seated.' (FA, 58)
c. $A j u \beta$
a-ju $\beta$
1SG-lie
'I am lying.' (FA, 57)
d. Aiko
a-iko
1SG-be
‘I am / I exist / I act.' (FA, 59)

### 5.3 Ditransitive Verbs

Some M-transitive verbs have a semantic valency of three, and are thus ditransitive verbs, but only two of the three arguments are macroroles (see Van Valin Ir and LaPolla 1997, 145154, Van Valin Jr 2001a and Van Valin Jr 2005, 60-67). The third argument of ditransitive verbs in Tupinambá is a non-macrorole indirect core argument because it takes the dative case, as in ( $\mathbb{1 5 8}$ ), or a non-macrorole oblique core argument, as in ( 159 ), because it is adpositionally marked. Pronouns can receive the dative case in TUP, but RPs require a postposition (see Section 1.8.1).
a. MaRepe Tupã ojme?en aseße ißakipene?
maRe=pe Tupã- $\varnothing$ o-i-meRey ase- $\beta$ e i $\beta$ ak-pe=ne thing=Q God-REF 3 -R2-give we-dat heaven-POSP=FUT
'What will God give us in heaven?' (CA, 27)
[do' (Tupã, $\varnothing$ )] CAUSE [BECOME have' (ase,i)]
b. Tame?ene pira rußa enéßo
t -a-meRey=ne pira- $\varnothing \quad \mathrm{r}$ - $\mathrm{u} \beta$-a ene- $\beta$ o
HORT-1SG-give=FUT fish-REF $\mathrm{R}_{1}$-egg- $\varnothing$ you-dAT
'I shall give you fish eggs.' (Teatro, 46)

Note that the only possibility of a non-macrorole direct core argument as an RP in TUP is with pronouns, because they can receive the dative case. Non-pronominal nonmacrorole core arguments are always indirect, because these are marked by unstressed suffixes, as in (L58) (see Section [.4).
a. $A p e k^{\mathrm{w}}$ aße?ey kunumi $\tilde{\mathrm{i}}$ supe a-pe-k ${ }^{\mathrm{w}}$ aßeRey kunumì- $\varnothing$ supe 1SG-path-show child-REF to
'I show the way to the children.' (see VLB, I, 152)
$\left[\mathbf{d o}^{\prime}(\mathrm{I}, \varnothing)\right]$ CAUSE $\left[\text { BECOME } \text { see }^{\prime}(\text { kunumi, } \mathrm{pe})\right]^{\text {II }}$
b. Aimoin upußa supe
a-i-mo-in uPu $\beta$-a supe
1SG-R2-CAUS-place arrow-REF with
'I point to him with the arrow (lit. I put the arrow towards him).' (VLB, I, 39)
c. $A^{2}{ }^{w} a ß e$ en $X$ supe
a-i-k ${ }^{\mathrm{w}} \beta$-meRen $\quad \mathrm{X}$ supe
1SG-R2-know-give X to
'I offered it to X.' (VLB, II, 54 modified) ${ }^{\text {I }}$
d. Ereimome?upe aßa aŋaipajemim-a $\mathrm{ik}^{\mathrm{w}}$ apare?ima ere-i-mome ${ }^{2}$ u=pe a $\beta$ a- $\varnothing \quad \varnothing$-ayaipa $\beta$-jemim-a 1 i-k ${ }^{\mathrm{w}}$ a $\beta$-ar-e?im-a 2SG-R2-tell=Q man-REF $\mathrm{R}_{1}$-evil-hide-REF $\quad \mathrm{R}_{2}$-know-NMLZ-PRIV-GER supe?
supe
about
'Did you tell someone who did not know it about one's hidden evil deeds?'
(Araújo, 108)

[^60]The closest to a dative shift alternation (see Haspelmath 2015, Van Valin Ir 2005, 60-62,112-115) found in TUP occurs when the undergoer is not an argument index but an RP which must be a possessed root. The possessed root is incorporated with the relational of non-contiguity $\left(\mathrm{R}_{2}\right)$ because its possessor is not adjacent. The relational of non-contiguity $\left(\mathrm{R}_{2}\right)$ will be that of its noun class membership (see Section4.3), in addition to $i$ - or $s$ - used to cross-reference the undergoer in transitive verbs. This is clear from example ([6]a), where the $\left(\mathrm{R}_{2}\right)$ is $t$-, indicating that the possessor is not the preceding element.

In (160)) , the recipient is coded by a PP (dative), but in (161), the lexical root is incorporated and the undergoer (recipient) is neither marked by case nor is it coded by a postposition. In other words, this type of incorporation advances an oblique argument into the case position vacated by the incorporation (see Mithum 1984). This difference points to a choice (marked or unmarked undergoer) regarding the undergoer, but there does not seem to be a semantic difference (see Van Valin Jr 2001a). This type of incorporation is only attested with ditransitive verbs that represent transfer of possession ${ }^{\text {区 }}$.

```
(160) Aime?e\eta a\betaa supe
a-i-me?e\eta a\betaa-\varnothing supe
1SG-R2-give man-REF to
'I gave it to the men.' (Teatro, 48)
```

$\left[\mathbf{d o}^{\prime}(1 \mathrm{SG}, \varnothing)\right]$ CAUSE [BECOME have $\left.{ }^{\prime}(\mathrm{i}, \mathrm{a} \beta \mathrm{a})\right]$

In the examples in (1161), the undergoer argument can be incorporated because it is a possessed noun, which is the reason why the predicate is transitive (two core arguments).

$$
\begin{array}{ll}
\text { a. AtaPime?ey } & \text { Pedro }  \tag{161}\\
\text { a-t-aPir-me?ey } & \text { Pedro } \\
\text { 1SG-R2-son-give Pedro } \\
\text { 'I give Pedro a son.' (AA, 50v) } \\
& \left.\left[\text { do' }^{\prime}(1 \mathrm{sG}, \varnothing)\right] \text { CAUSE [BECOME have' (Pedro, t-aPir) }\right]
\end{array}
$$

[^61]```
b. Aiaome?en Pedro
a-i-ao \(\beta\)-me?en Pedro
1SG-R \({ }_{2}\)-clothes-give Pedro
'I give clothes to Pedro / I clothe Pedro.' (AA, 50v)
```

Comparing ([16]) with ([62), the difference between them is the presence of another relational marker in the latter examples which indexes a new argument, namely the undergoer. The first relational marker indexes a macrorole core argument (the undergoer), while the second relational marks the non-contiguity of the possessed root and its possessor (the non-macrorole core argument). ${ }^{[.]}$
a. Aita?ime?ey Pedro a-i-[t-aPir]-me?en Pedro 1SG-R2-R ${ }_{2}$-son-give Pedro
'I give him Pedro's son.' (AA, 50v)
$\left[\mathbf{d o}^{\prime}(1 \mathrm{SG}, \varnothing)\right]$ CAUSE [BECOME have ${ }^{\prime}$ (i, [Pedro t-aPir])]
b. Aijaome?en Pedro
a-i-[i-ao $\beta]$-me?ey Pedro
1SG-R ${ }_{2}-\mathrm{R}_{2}$-clothes-give Pedro
'I give him Pedro's clothes.' (AA, 50v)

The representation of (162a) is given in Figure 5.3.

Note that the recipient is also an unmarked choice of non-macrorole core argument, since it is cross-referenced by the relation $\left(\mathrm{R}_{2}\right) i$ -

Without the incorporation, the construction above would be as in ([163) below, with the possessive RP Pedro r-aPira 'Pedro's son' in the extra-core slot (ECS), coreferential with the $i$ in the core:

$$
\begin{array}{ll}
\text { Aime?ey } & \text { Pedro ra?ira }  \tag{163}\\
\text { a-i-me?ey } & \text { Pedro r-a?ir-a } \\
\text { 1SG-R2-give } & \text { Pedro } R_{1} \text {-son-REF }
\end{array}
$$

[^62]

Figure 5.3: Incorporation with possessor stranding
'I give away Pedro's son.' (non-attested)

In (160]), the recipient (Pedro) is not morphologically marked as such - it is not known if it could appear in a different order, e.g., pre-core.

Since examples of the type of incorporation displayed in (162) are not frequently attested, it is not possible to know if the dative shift involved in such constructions entailed semantic differences, exhibiting some kind of fluidity in terms of semantic role/syntactic function correspondences (see Dixon 2011).

### 5.4 Privileged Syntactic Argument

The treatment of grammatical relations in diverse languages based on the relations of subject, direct object, and indirect object has revealed itself to be problematic (see, e.g., Foley and Van Valin Ir 1984; Dryer 1997a). RRG posits a single construction-specific grammatical relation, called the PSA, of which 'subject' is a generalization. Thus, one can speak of the 'Subject' in German, English, Malagasy, etc., but not the *'PSA in German', for example. Conversely, one can speak of 'the PSA of a raising construction', but not *'the subject of a raising construction.'

The notion of the PSA is justified by the fact that seemingly all languages have
syntactic constructions in which there are restrictions on the RPs and PPs (arguments and non-arguments) that can be involved in them. These restrictions, the privileges given to a constituent, define a privileged syntagmatic function with respect to that construction (Van Valin Ir and LaPolla [1997, 251,277). Thus, acknowledging that grammatical relations do exist but are not necessarily universal, RRG assumes that grammatical relations are not only language-specific but also construction-specific (see LaPolla ming). The PSA is associated with the pivot or controller of a construction. Voice modulation may alter which of these is required in a construction, as when the passive requires the Undergoer to be the pivot or controller. TUP does not have a passive voice, and it also lacks constructions in which an argument of a linked construction is missing.

In TUP, the same argument indexes cross-reference the subject of transitive and intransitive verbs, whether this is actor or undergoer, i.e., there is a neutralization of semantic roles, as shown in (164):
(164) a. Intransitive verb Subject is undergoer.

Amanõ
a-manõ
1SG-die
'I die.' (VLB, II, 42)
b. Intransitive verb. Subject is actor.

Ajãn
a-jãn
1SG-run
'He runs.' (cf. VLB, I, 82)
c. Transitive verb. Subject is undergoer.

Asawsu $\beta$
a-s-awsu $\beta$
1SG-R2-love
'I love him.' (VLB, I, 33)
d. Transitive verb. Subject is actor.

Asupir
a-s-upir
1SG-R2-lift
'I lift it.' (VLB, I, 121)

There is no split in TUP, as mentioned in Section [.]. Many stative roots require the same active markers exemplified in (164)): $k^{w} a \beta$ 'know', iko $\beta e$ 'live, be', $\mathrm{Pi} / \mathrm{Pe}$ 'be of age, be late'.

Referring to the PSA as construction-specific means that there will often be conventionalized patterns, such as the position of a referring expression in the clause with some semantic role or macrorole, marking on nouns or pronouns with particular semantic roles, or reference to a referent in two clauses (see LaPolla ming), where the construction limits the possible interpretations of the role of a particular participant in the action described in the clause (Van Valin .Jr and LaPolla II997, 242-316).

The PSA in TUP is always the subject [A or S], which is a generalization across the PSAs of particular constructions. This is a default choice because, in accusative languages, the highest-ranking macrorole is the default (not the unique) choice for PSA. In TUP cosubordination, for example, there is a restriction on the interpretation of the argument in the nominalized core (see Section [0.1.2), which must be coreferential with the $S$ in the main core. Co-reference requires a different construction if the argument in the main core is the A , and it is impossible with an O argument.

The semantic representation (logical structure) of a grammatical clause is the first step in constructing a clause, as described in Section (3.3), where each Aktionsart has a unique logical structure that includes the salient argument positions. Based on the position of the arguments in the semantic representation, macroroles are assigned according to the AUH (see Section [3.3), and one of these is chosen to bear the privileged relation to the predicate PSA for the specific construction(s). This relation is privileged syntactically in that it is signaled by coding properties (e.g., agreement) and behavioral properties (e.g., the role of the RP), a distinction suggested by Keenan (1976).

### 5.5 Nonprototypical ('non-verbal') predication

Nonprototypical predication refers to the predication of concepts other than action concepts (see Chapter 4). It includes the predication of object concepts and property concepts. Nonprototypical predication also includes the predication of location (in which case it is existential) and the predication of possession (where it is predpossessive). Within the Tupían family, there are interesting types and variations of these (see Dietrich 2023).

Most types of nonprototypical predication (see Haspelmath 2022; Crott 2022a) in TUP require a unique construction, as exemplified in (165). Here, the lexical root functions as the predicate and is preceded by a relational marker (165a), which may be preceded by a possessor index ([7]) or, alternatively, preceded or followed by an RP, as in (1655d) and (165d).
(165) a. Attributional construction

Ikatu be? $\tilde{i}$
i-katu be? $\tilde{i}$
$\mathrm{R}_{2}$-goo a.little.bit
'It is a little better.' (VLB, I, 31)
b. Classificational construction

Seporomo?esar
fe=poro-moPe-sar
$1 \mathrm{SG}=\mathrm{ANTIP}-$ teach $-\mathrm{NMLZ}_{\mathrm{AG}}$
'I am a teacher.' (cf. VLB, II, 62)
c. Equational construction

Iporese?õ ferera
Iporese $2 \tilde{o}$ fe=r-er-a
Iporeseõ $1 \mathrm{SG}=\mathrm{R}_{1}$-name-REF
'My name is Iporeseõ.' (Poemas, 154)
d. Equational construction

| Jerera | Kururupe $\beta a$ |
| :--- | :--- |
| fe=r-er-a | Kururupe $\beta a$ |
| $1 \mathrm{SG}=\mathrm{R}_{1}$-name-REF | Kururupeba |
| 'My name is Kururupeba (flat frog).' (Teatro, 92) |  |

equate $^{\prime}$ ( erera,Kururupe $\beta a$ )
e. Attributional construction

Kunumi $\tilde{i}$ turusu
kunumi- $\varnothing$ t-urusu
boy-REF $\quad \mathrm{R}_{2}$-big
'The boy is big.' (FA, 75)
$\mathbf{b i g}^{\prime}$ (kunumi)
f. Predpossessive construction

Jeko
$\int \mathrm{e}=\varnothing$-ko
$1 \mathrm{SG}=\mathrm{R}_{1}$-slash
'I have a slash.' (FA, 67)
have' ${ }^{\prime}$ (1SG,ko)

The existential type may also be expressed by the construction in ([65), but often the (full) verb ikoße 'exist, be'四 (see Figueira 1687, 66) is employed in the texts.

```
a. Oiko \(\beta\) e \(\int\) etaiai \(\beta\) a
o-iko \(\beta\) e \(\int\) e \(=\varnothing\)-taiai \(\beta\)-a
3-exist \(1 \mathrm{SG}=\mathrm{R}_{2}\)-courage-REF
'My courage exists.' (Teatro, 24)
exist'(my courage)
```

b. Oikoßepe amõ aßa sekoßjaramo?
o-ikoße=pe amõ a $\beta \mathrm{a}-\varnothing$ s-eko $\beta$ jar-ramo
3-exist=Q other man-REF $R_{2}$-substitute-TRSL
'Does another man exist as his successor?' (Araújo, 50v)

All attestations of $i k o \beta e$ have the verb preceding the RP in the ECS. ${ }^{[1]}$

For equational predication, another construction is available which uses the nominalizer used for relativization (see Section 8.3). This construction is not particularly different since no copular element stands between both arguments. Two examples are given in (167).

[^63](167)
a. Pedro osó $\beta$ a?e

Pedro o-so- $\boldsymbol{\beta a \mathbf { a P e }}$
Pedro 3-go-NMLZ ${ }_{\text {REL }}$
'Pedro is the one who goes / the going one.' (AA, 30v)
equate ${ }^{\prime}($ Pedro, osó $\beta$ aPe)
b. Niporaŋi $\beta$ aPe
ruã aPe tata
n -i-poray-i- $\beta \mathbf{a P e}$
ruã aRe t-ata- $\varnothing$
NEG-R 2 -beauty-EPEN-NMLZ REL NEG this $R_{4}$-fire-REF
'That fire is not the one which is beautiful.' (Araújo, 163v)

The case of the predlocative construction is curious, because while all other nonverbal predicative constructions in TUP do not require a copula or a verb, the predlocative construction is almost exclusively attested with the verbs iko 'be, act' and iko $\beta e$ 'exist, be'. Also puzzling is the fact that in many other TG languages, including Nheengatu, the direct descendant of TUP (see Magalhães et al. 2019, 179 and Cruz 201], 471-477), the copula is not required. ${ }^{\boxed{2}}$

$$
\begin{array}{ll}
\text { a. } & \text { Pedro okope }  \tag{168}\\
\text { Pedro o-ko-pe } & \text { sekow } \\
\text { s-iko-w } \\
\text { Pedro corF-slash-LOC } \text { R }_{2} \text {-be-NFOC } \\
& \text { 'Pedro is in his own slash.' (FA, 81) }
\end{array}
$$

b. ißakipe oiko jaßepe sekow?
i $\beta$ ak-pe o-iko ja $\beta$ e=pe s-eko-w
sky-LOC 3-be as=Q $\quad \mathrm{R}_{2}$-be-NFOC
'Is he in heaven as he is in it (in the wafer)?' (DC, I, 215)

Two of the few attestations of a predlocative construction without a verb are given below:
(169) MaPepe calix pupe?
maPe=pe calix pupe
thing $=\mathrm{Q}$ chalice in
'What is in the chalice?' (DC, I, 216)
(170) Umãpe Tatapitera?
umã=pe Tatapitera
where=Q Tatapitera

[^64]'Where is Tatapitera?' (Teatro, 130)
(171)
a. Neru $\beta$
ne $=\mathrm{r}-\mathrm{u} \beta$
$2 \mathrm{SG}=\mathrm{R}_{1}$-father
'You have a father.' (FA, 39)
b. $\int \operatorname{erasi}$
fe=r-asi
$1 \mathrm{SG}=\mathrm{R}_{1}$-pain
'I have pain.' (Teatro, 48)

In the case of a non-possessed root, there appears to be no need for the relational of non-contiguity, as in ([72) ${ }^{[1]}$.
(172) MaPeete Tupã rep ${ }^{j}$ aka?
maPe-ete Tupã r-ep ${ }^{j}$ ak-a
thing-EMPH God $\mathrm{R}_{1}$-see-REF
'Is it a good thing to see God? (lit. the vision of God)' (DC, I, 173)

With a possessor index:
(173) a. $\int \operatorname{eru} \beta$
$\int \mathrm{e}=\mathrm{r}-\mathrm{u} \beta$
$1 \mathrm{SG}=\mathrm{R}_{1}$-father
'I have a father / There is my father.' (FA, 38)
b. Neru $\beta$
ne $=\mathrm{r}-\mathrm{u} \beta$
$2 \mathrm{SG}=\mathrm{R}_{1}$-father
'You have a father / There is your father.' (FA, 38)

Since TUP lacks a third person possessor index, whenever the possessor is expressed by an RP, the RP follows the predicate, which carries the relational of non-contiguity because its dependent does not precede the head.
a. Iporaŋ ko Tupãoka
i-poraŋ ko Tupã-ok-a
$\mathrm{R}_{2}$-beauty this God-house-REF

[^65]'This church is beautiful.' (FA, 38)
b. Ipor nerige
i-por ne=r-ige
$\mathrm{R}_{2}$-full $2 \mathrm{SG}=\mathrm{R}_{1}$-womb
'Your womb is full.' (Poemas, 116)
c. $\operatorname{Ipofi}$
i-pofi
R2-ugly
'He is ugly.' (Araújo, 163v)

If the RP is fronted, preceding the predicate, then it is in a topical position (PrDP).

Predlocation (predication of location) is a curious case in TUP, not only because it differs from other nonprototypical predication constructions but because it also differs from other TG languages. Predlocation in TUP, as attested in the texts, always requires the verb iko 'be, act, live, happen', which takes person indexes from Set I (see Section 4.3.1).

### 5.6 Word order

In TUP, the order of bound elements in the core corresponds to SOV. Nonetheless, the word order of the RPs coreferential with the arguments is not fixed. Frequency is not the most prominent criterion in identifying word order (see Siewierska 1988), but it is an important one. The recently published treebank of Tupinambá in the Universal Dependencies (Gerardil 2020) project will be a useful tool for quantitative analyses as its coverage improves, and will allow for a clearer picture regarding not only word order, but other aspects of the language as well.

The RPs in ECS coreferential with the core arguments have no overt marking to indicate their grammatical functions, and their order seems to be flexible in relation to the core. The first grammarians, as expected, did not present a clear picture, but Anchieta (I595, 16 v ), for instance, does mention that in a sentence such as ( $\amalg 75)$ ), 'his (own) father' refers to Joanne, which suggests that the RP coreferent with the actor more commonly preceded the undergoer-related RP (OSV), even though later texts seem to prefer SOV.
$\begin{array}{llll}\text { (175) } & \text { Joanne Pedro osawsu } \beta & \text { ogu } \beta a & \text { rawsume } \\ & \text { Joanne Pedro o-s-awsu } \beta & \text { o-u } \beta \text {-a } & \text { r-awsu } \beta \text {-me } \\ & \text { Joanne Pedro 3-R } & \text {-love } & \mathrm{R}_{4} \text {-father-REF }\end{array} \mathrm{R}_{1}$-love-CLM
'Pedro loves Joanne because he loves his own father / Joanne loves Pedro because he loves his own father.' (AA, 16v)

Anchieta (1595, 36v) also mentions a simpler case in which an animate entity acts on an inanimate object. In this case, the animate RP is taken to be the actor independent of the order in which it appears:
a. OSV

$$
\begin{array}{ll}
\text { Miape } & \text { Pedro o?u }  \tag{176}\\
\text { miape- } \varnothing & \text { Pedro o-Pu } \\
\text { bread-REF } & \text { Pedro 3-eat } \\
\text { 'Pedro eats bread.' (AA, 36v) }
\end{array}
$$

b. SOV

Pedro miape opu
Pedro miape- $\varnothing$ o-Ru
Pedro bread-REF 3-eat
'Pedro eats bread.' (AA, 36v)
c. VSO

ORu Pedro miape.
o-Ru Pedro miape- $\varnothing$
3-eat Pedro bread-REF
'Pedro eats bread.' (AA, 36v)

When both arguments are animate, Anchieta states (Anchieta 1595, 36v) the meaning is ambiguous. This seems to imply that any order would have been possible ${ }^{\pi 4]}$, such that in the case of (■77), the only way to avoid ambiguity would be to use 'participles', a term used by Anchieta to refer to nominalizers (see Section 8.3), such as those employed in (178).
(177) Pedro Joanne ojuka

Pedro Joanne o-i-juka
Pedro Joanne 3-R2-kill

[^66]'Pedro kills Joanne / Joanne kills Pedro.' (AA, 36v)
(178) a. Pedro ijukasara

Pedro i-juka-sar-a
Pedro R $_{2}$-kill- $\mathrm{NMLZ}_{\mathrm{AG}}$-REF
'Pedro was his killer.' (AA, 36v)
b. Pedro ijukapira

Pedro i-juka-pir-a
Pedro R $_{2}$-kill-NMLZ PAT -REF
'Pedro was the killed (one).' (AA, 36v)

Besides the orders in examples above, the following orders are attested:
(179) The RP related to the actor follows the core

I have not found such a case in the texts.
(180) The RP related to the undergoer precedes the core
Neakaya juka ajpota korine
ne $=\varnothing$-akay-a $\quad \varnothing$-juka- $\varnothing \quad$ a-i-pota $\quad$ kori=ne
$\left[2 S G=R_{1} \text {-head-REF } R_{1} \text {-kill-REF] }\right]_{j} 1 \mathrm{SG}_{\mathrm{i}}-\mathrm{R}_{2 \mathrm{j}}$-want today-FUT
'I shall want to break your head later on today.' (Staden, 156)
(181) The RP related to the undergoer follows the core

Oimome?u umã karaiße $\beta$ ipikiPirape ipuruParamo
$\mathrm{o}_{\mathrm{i}}-\mathrm{i}_{\mathrm{j}}$-mome?u umã $\quad[\text { karai } \beta \mathrm{e} \beta \mathrm{e}-\varnothing]_{\mathrm{i}}$ i-pikiPir-pe $\quad$ i-puru?a-ramo
3-R $\mathrm{R}_{2}$-anounce already angel- $\varnothing \quad \mathrm{R}_{2}$-younger.cousin-DAT $\mathrm{R}_{2}$-pregnant-TRSL
seko
s-eko
$\mathrm{R}_{2}$-be
'The angel had already told her cousin of her pregnancy (of her being pregnant).'
(Araújo, 6v)
(182) Both RPs precede the core with the RP related to the DCA preceding the RP related
to the 'subject'
Tupã ase ojmoete...
[Tupã] ${ }_{j}[\text { ase }]_{\mathrm{i}} \mathrm{o}_{\mathrm{i}}-\mathrm{i}_{\mathrm{j}}$-mo-ete
God we 3-R2-CAUS-good
'We honor God / one honors God [...].' (Araújo, 101)

Noun modifiers (see Section [8.4) follow the head noun, as in ([183]), a property that correlates with OV order more commonly in South America (and Australia-New Guinea) than in other parts of the world (Dryer [1992b, 95).
(183) A $\beta$ aporaga

аßа-poray-a
man-beauty-REF
'Beautiful man.' (see DC, II, 97)

Determiners (see Section 8.2.|.]) precede head nouns (I84), as well as genitives (185).
(184) Iko aßa
iko $a \beta a-\varnothing$
DEM man-REF
'This man.' (Araújo, 60v)
(185) Tupana jeRena

Tupana $\varnothing$-je Reŋ-a
God $\mathrm{R}_{1}$-word-REF
'Word of God.' (AT, 146)

SOV languages with postpositions, noun-modifier, and possessor-possessed order are neither the most common type of SOV, nor the least common (see Greenberg 1963; Hawkins [1983).

### 5.7 Valency changing

The notion of valency has a wide range of effects on the morphosyntax of Tupinambá. All valency changing morphemes in TUP, with one exception, are prefixes occurring closer to the predicate nucleus than other prefixes, such as person markers. This is a common characteristic of Tupían languages which is also common in Amazonia (cf, Dixon and Aikhenvald 1999, 9).

Verbal valence morphology reflects the influence of semantic valency on TUP morphosyntax. The fundamental valency distinction in this language is that between semantically
monovalent and semantically polyvalent verbs. This distinction plays a prominent role in phenomena such as the formation of imperatives, interrogatives, and negative clauses. Not surprisingly, it also plays a prominent role in the establishment of grammatical relations.

### 5.7.1 Causatives

Causatives increase the semantic valency of predicates by introducing a new agent to their argument structure (Zúñiga 2020, 15). TUP has two types of causatives: lexical, of which there are no more than a dozen, and morphological ${ }^{[\boxed{ }]}$. Examples of lexical causatives, i.e., causatives which do not contain any formal differentiation between the causal predicate and the affected predicate, include: poj 'feed', samok 'untie', upir 'lift, raise', juka 'kill', and apiei 'tie'. A possible source of these lexical causatives lies in their colexifications: juka < ajur 'neck' $+k a$ 'break', samok < sam 'rope' + ( ?) ok 'cut'. There is also a pair of verbs which seems to stem from a single root displaying vowel alternation between /e/ and $/ \mathbf{u} /$ for the intransitive-causative opposition: jeka (intr.) 'break' and juka (tr.) 'break ${ }^{\text {, }{ }^{[6]} \text {. }}$ Possibly, there were other verbs exhibiting such an alternation that are not attested in the TUP corpus but which have survived in other languages, as in Paraguayan Guaraní (see Velázquez-Castillo [2002, 512).

### 5.7.1.1 Causative of M-intransitive predicates

There are two types of morphological causatives, depending on the M-transitivity of the predicates. M-intransitive predicates are causativized by the prefix mo-. The following examples (I®86) show causativized predicates:

$$
\begin{array}{ll}
\text { a. } & \text { Aimojiriõ } \quad \text { Tupã } \text { fejopupe }  \tag{186}\\
\text { a-i-mo-jirõ } \quad \text { Tupã } \text { fe=jo-pupe } \\
\text { 1SG-R2-CAUS-calm God 1SG=RFLX-POSP } \\
\text { 'I appease God for me.' (FA, 81) } \\
& {\left[\mathbf{d o}^{\prime}(1 \text { SG, } \varnothing)\right] \text { CAUSE }\left[\text { feel' (i(Tupã), }\left[\text { calm }^{\prime}\right]\right)}
\end{array}
$$

[^67]b. | Opa | $\dot{i} \beta$ aka | erejmopo, | paranã |
| :--- | :--- | :--- | :--- |
| opa $\beta \dot{\mathrm{i}}$ | a $\beta e$ |  |  |
| opa | $\dot{i} \beta$ ak-a | ere-i-mo-por | paranã- $\varnothing$ |
| all $\beta \dot{\mathrm{i}}-\varnothing$ | a $\beta e$ |  |  |
| all | sky-REF | 2SG-R2-CAUS-contain sea-REF | earth-REF | also

'You fill all the skies, the sea and the earth.' (Poemas, 128)

While obligatory in the northern variety described by Figueira (1687), the relational morpheme $\left(\mathrm{R}_{2}\right)$ indexing the undergoer of causativized predicates as in (1186) was not required in the southern variety described by Anchieta, as exemplified in, ([187) ${ }^{\boxed{\square}}$.
a. Amoramwe
a-mo-ramwe
1SG-CAUS-frustrate
'I frustrated them.' (AT, 14)
$\left[\mathbf{d o}^{\prime}(1 \mathrm{SG}, \varnothing)\right]$ CAUSE $\left[\right.$ feel $^{\prime}\left(\varnothing,\left[\right.\right.$ frustrated $\left.\left.^{\prime}\right]\right)$
b. A-monij korinone
a-mo-nij kori-no=ne
1SG-CAUS-tremble today-PRCL=FUT
'I will scare them today too.' (AT, 20)

The absence of $\left(\mathrm{R}_{2}\right)$ indicates that the undergoer is zero realized and coreferential with an RP in the ECS, as in (I88).
(188) Ko ?ara jamotupã
[ko Par-a] ${ }_{i}$ ja- $\varnothing_{i}$-mo-tupã
this day-REF 1PL.INCL-R2-CAUS-God
'We sanctify this day.' (Araújo, 4v)

Other examples are shown in (1189), with their syntactic representation given in Figure 5.5:
a. Aimojeapin Pedro Diogo supe
a-i-mo-jeapin Pedro Diogo supe
1SG-R2-CAUS-shave Pedro Diogo POSP

[^68]

Figure 5.4: Representation of ([188)
'I make Diogo shave Pedro.' (FA, 90)
b. Ko santo omongetasara
ko santo o-moŋeta-sar-a
ojmojekosu $\beta$
o-i-mo-je-kosu $\beta$
imaRe
i-maPe- $\varnothing$
R2-thing- $\varnothing$
ikajemira kojpo semiawsuja $\beta$ a $\beta a \quad$ supe
i-kajem-pir-a kojpo s-emi-awsu $\beta$-ja $\beta$ a $\beta$-a supe $\mathrm{R}_{2}$-disappear-NMLZ-REF or $\mathrm{R}_{2}$-RES-slave-flee-REF to
'This saint helps the one who prays to him to recover his lost things or his runaway slave.' (Araújo, 6)

$\left[\mathbf{d o}^{\prime}(\mathrm{I}, \varnothing)\right]$ CAUSE $\left[\mathbf{d o}^{\prime}\right.$ (Diogo, $\left[\right.$ shave $^{\prime}($ Diogo, $\mathrm{i}[$ Pedro $\left.\left.\left.])\right]\right)\right]$
Figure 5.5: Representation of (II89a), a causative construction with three core arguments

The example (1889a) is an interesting one, since $a$ - is selected as the actor macrorole (see Figure [3.18) and Pedro as the undergoer macrorole. Diogo, despite being an actor, cannot be a macrorole, and is therefore marked by a postposition according to (IV1).

The prefix mo- displays considerable flexibility regarding the types of stem with
which it combines. Some examples are given in (190)-(193)):
(190) Nominal root

Aimoaßare Pedro
a-i-mo-aßare Pedro
1SG-R2-CAUS-priest Pedro
'I ordain Pedro / cause Pedro to be(come) a priest.' (Arte, 48v)
(191) Intransitive state predicate

Oporomotekok ${ }^{\mathrm{w}} \mathrm{a} \beta \mathrm{e}$ ?ima
o-poro-mo-tekok ${ }^{\text {w }}$ a $\beta$-e?im-a
3-ANTIP-CAUS-ignorant-PRIV-GER
'Causing people to be ignorant.' (Araújo, 83)
(192) Intransitive active predicate

| Aimosem | Ajanga |
| :---: | :---: |
| a-i-mo-sem | Ajaya $\mathrm{fe}=$ jo-swi |
| 1SG-R2-CAUS-leave devil |  |
| 'I expel the Devil from myself.' (DC, I 163) |  |

(193) Numeral

Momosapir
mo-mosapir
CAUS-three
'Cause to be the third (time).' (VLB,II,115)

Table 5.3 has examples of causativized predicates. Note that all predicates are originally intransitive ${ }^{\boxed{18}}$.

| Form | Translation | Causativized form | Translation |
| :---: | :---: | :---: | :---: |
| a $\beta$ are | priest | mo-aßare | cause to be a priest / ordain (VLB, II, 58) |
| tiniy | dry (intr.) | mo-tinig | cause to dry /dry (tr.) (VLB, II, 1 14) |
| so | go | mo-no | cause to go / send (FA 84) |
| aku $\beta$ | hot | mo-aku $\beta$ | heat up (DC, I, 221) |
| sii | tremble | mo-nii | scare /cause to tremble (AT 20) |

Table 5.3: Causativized intransitive roots

Predicates derived with mo- have all the morphological possibilities of a regular

[^69]transitive predicate, i.e., they may combine with the reflexive $j e$ - (194), the nominalizing resultative prefix $t$-embi- (195) , and the nominalizing agentivizer -sar (196):

| Ajemoori $\beta$ usu, | nero $\beta$ ake | witu |
| :--- | :--- | :--- |
| a-je-mo-ori $\beta$-usu | ne $=$ r-o $\beta$ ake- $\varnothing$ | wit-u- $\varnothing$ |
| 1SG=RFLX-CAUS-happy-AUG | $2 \mathrm{SG}_{\mathrm{G}}=\mathrm{R}_{1}$-face-REF | 1SG $_{\text {CORF }}$-come-GER |

'I rejoice greatly about you (becasue your face is coming to me).' (Abbeville, 342)
(195) Jeremimono
$\int \mathrm{e}=\mathrm{r}-\mathrm{emi}-\mathrm{mo}$-so- $\varnothing$
1SG=R1-RES-CAUS-go-REF
'My sent thing (thing I caused to go).' (FA, 70)
(196) Ajanga mosemara

Ajanga- $\varnothing$ mo-sem-sar-a
devil-REF CAUS-leave-NMLZ $\mathbf{Z}_{\mathrm{AG}}$-REF
'One who casts out the devil (who causes the devil to leave).'(Cantigas, III)

In (Ш97), the incorporation with the non-contiguous marker $\left(\mathrm{R}_{2}\right)$ makes the verb intransitive. Thus, the complex nucleus can combine with the causative mo- (see Section 5.7.1.2).

```
(197) Aimotekok}\mp@subsup{}{}{\textrm{w}}\textrm{a}
a-i-mo-t-eko-k w
1SG-R2-CAUS-R2-fact-know
'I teach him (cause him to know facts).'(VLB, II, 12)
[do' (I)] CAUSE [BECOME know' (i,tekokuwa}\beta)
```


### 5.7.1.2 Causative of M-transitive predicates

It is not uncommon cross-linguistically for predicates of different valencies to be causativized by different strategies (Zúñiga 2020, 31). M-transitive predicates are causativized by -ukar suffixed to the predicate ${ }^{20}$. Contrary to Navarro (2011, 2013), who considers ukar to be a verb because it may combine with nominalizers such as -sar and -sa $\beta$, it is here

[^70]considered to be a bound lexical morpheme. Since most of the affixes that combine with the predicate nucleus are prefixes, it is indeed exceptional that -ukar is a suffix. The following example is offered by Navarro (2011):

| (198) | Omena | kojpo wemireko | jukasara | kojpo |
| :--- | :--- | :--- | :--- | :--- |
| o-men-a | kojpo o-emireko- $\varnothing$ | juka-sar-a | kojpo |  |
| $3_{\text {CORF }}$-husband-REF | or | $3_{\text {CORF }}-$ wife-REF | kill-NMLZ |  |
| ijukaukasara |  | $(\ldots)$ |  |  |
| i-juka-ukar-sar-a |  |  |  |  |
| R $_{2}$-kill-FAC-NMLZ |  |  |  |  |

'The one who kills his own husband or his own wife, or the one who causes their killing (makes them get killed).' (Araújo [1686], 279)

In the example above, the nominalizer sar attaches to ukar when this is already combined with a lexical element. ${ }^{\text {[ }}$

In favor of -ukar as a factive marker, there is the fact that it is never attested alone combined with argument indexes; (Figueira 1687, 146) states that it alone has no meaning. Furthermore, it is probably diachronically related to a transitivizer found in other Tupían languages, such as $k a$ in Akuntsu (see e.g. Aragon 2014, 213-217). The sentences in (109) illustrate the use of -ukar.
a. Herodes pitaya [...] mokõj roì omoawje $\beta$ aie,

Herodes pitaŋ-a [...] mokõj ro?ì- $\varnothing$ o-mo-awje- $\beta$ aRe
Herodes child-REF [...] two year-REF 3-CAUS-terminate-REL
mopa $\beta$ ukarawera
mo-pa $\beta$-ukar-sa $\beta$-wer-a
CAUS-all-FAC-NMLZ-PST-REF
'Herodes caused the annihilation of the children that completed two-years.' (Araújo,
10)
b. Judeus supe sep ${ }^{j}$ akuka
judeus- $\varnothing$ supe s-ep ${ }^{j}$ ak-ukar-a
jews DAT $R_{1}$-see-FAC-GER

[^71]'Showing it to the Jews (causing the Jews to see it.' (Araújo, 60v)
c. ARe omena supe $1 \dot{\beta} \beta \mathrm{a}$ PuukaraPußi
aRe o-men-a supe $\mathrm{i} \beta \beta \mathrm{a}-\varnothing$ Pu-ukar-aRu $\beta-\mathrm{i}$
PRCL COREF-husband-REF POSP fruit-REF eat-FAC-false-NFOC
'She wrongly made her husband eat the fruit.' (Poemas, 178)
d. Esep ${ }^{j}$ akukar oré $\beta e$
e-s-ep ${ }^{j}$ ak-ukar ore- $\beta$ e
2SG.IMP-R2-See-FAC 1PL.EXCL-DAT
'Make us see him.' (Araújo, 14v)
$\left[\mathbf{d o}^{\prime}(\mathrm{e})\right]$ CAUSE $\left[\mathbf{s e e}^{\prime}(\right.$ ore, 3$\left.)\right]$
e. Santa Helena, Constantino rei sí, osekarukar

Santa Helena Constantino rei $\quad \varnothing$-sì- $\varnothing \quad$ o-s-ekar-ukar
Saint Helena Constantino king $\mathrm{R}_{1}$-mother-REF 3-R 2 -search-FAC
'Saint Helena, mother of the king Constantine, caused (commanded) to seek it.'
(Araújo, 4v)

The interpretation of ukar as a verb has implications for the analysis of causative/factive constructions. In the case of a lexical verb with a causative function, such as the verb faire 'do, make' in French, the core contains a complex nucleus formed by the junction of two nuclei. This is exemplified in (200), with its representation given in Figure 5.6 (see Section [0.J.]):
(200) Je fais manger les gâteaux à Fabrice.


Figure 5.6: Factive construction with nuclear juncture (complex nucleus) in French

In the analysis proposed here, there is no nuclear juncture since $u k a r$ is a causative marker, not a lexical item. Thus, the structure of (201) can be seen in its semantic represent-
ation:

| Munepora | mojepe pejmosemukar | isé $\beta \mathrm{e}$ |
| :--- | :--- | :--- |
| munepor- $\varnothing$ | mojepe pe-i-mo-sem-ukar | ise- $\beta \mathrm{e}$ |
| prisoner-REF | one | 2 PL-R2-CAUS-leave-CAUS I-DAT |

$\left[\mathbf{d o}^{\prime}(\mathrm{pe}, \varnothing)\right]$ CAUSE $\left[\mathbf{d o}^{\prime}(\mathrm{ise}, \varnothing)\right.$ CAUSE $\left[\right.$ BECOME be.free' $^{\prime}$ (i[munepora])] $]$

In (201), the causative predicate mo-sem 'cause to leave' is causativized by the causative ukar, which requires an additional argument. As the semantic representation shows, the initial effector of the causal chain is the actor macrorole (Van Valin Jr and LaPolla I997, 84-85,145-147,377-382). The undergoer macrorole is $i$, with which the RP mundepora 'thief' is coreferential, and the choice is clear: according to the AUH (3.18) it outranks ise ' I ', which is also an argument, but an oblique non-macrorole argument. Since it is also an effector (actor), it has to appear in the dative, the default case for non-macrorole arguments (Van Valin .Jr 2005, 110-115).

As a causativizer of M-transitive predicates, ukar may combine with causative predicates (causativized by mo). An example was given in 201 and another follows in 202 .

| (202) | Aporomo?eukar | Pedro supe |
| :--- | :--- | :--- |
| a-poro-mo-Re-ukar | Pedro supe |  |
| 1SG-ANTIP-CAUS-say-CAUS Pedro POSP |  |  |
|  | 'I make Pedro teach people.' | $(\mathrm{FA}, 146)$ |

Here, the PSA is the causer agent. The causee, also an agent, bears the dative case and appears in the periphery as an adjunct (not as a core argument).

The result of causativizing a causative predicate is a two-argument clause in which the causee bears dative case, as in (202), represented in (5.7).

### 5.7.1.3 Sociative causative

Causation in Tupinambá, as in many South American languages (Guillaume and Rose 2010), is semantically sensitive to a specific aspect of event structure which, according


Figure 5.7: Causative clause with peripheral argument
to Shibatani and Pardeshil (2002), lies between direct and indirect causation on a continuum, referred to as sociative causation ${ }^{[2]}$. Sociative causation is marked by the prefix (e)ro- ${ }^{[2]}$, indicating that the causer makes the causee perform the action and takes part in it. A distinct marker for sociative causation is apparently an uncommon typological feature, although it is more commonly found in South America (see Guillaume and Rose 2010). Example (203]) shows an example of sociative causation with its logical structure:

## (203) Aroßeßéne

a-ero- $\beta$ e $\beta e=n e$
1SG-SCAU-fly-FUT
'I will make them fly with me."

$$
\left[\mathbf{d o}^{\prime}(1 \mathrm{SG}, \varnothing)\right] \text { CAUSE }\left[\mathbf{d o}^{\prime}\left[(\text { they }) \mathbf{f l y}^{\prime}([\text { they }])\right] \wedge\left[\mathbf{d o}^{\prime}(1 \mathrm{SG}, \varnothing), \mathbf{f l y}^{\prime}(1 \mathrm{SG})\right]\right.
$$

The sociative causative prefix only combines with intransitive roots, as in (204), where the semantics of ero- shows that it can have a sociative causative meaning (204a) as well as a comitative applicative meaning (2044). There is a difference, as illustrated in (204), between I make them dance and dance with them (sociative causative), and I dance with them (comitative applicative) (see Guillaume and Rose 2010).

[^72]a. Aimire, jaraso muru, tawje, janeroipira

Aimire ja-ro-so muru tawje jane=r-oipir-a
Aimbere 1INCL.PL-SCAU-go unblessed soon 1 INCL.PL $=\mathrm{R}_{1}$-substitute-REF moesãja
mo-esãj-a
CAUS-happy-GER
'Aimbire, let's take (cause to go with us) the unblessed, soon, in order to make our substitutes happy.' (Teatro, 42)
b. feanameta aroporasej seru
$\int e=\varnothing$-anam-eta a-ero-porasej s-er-u
$1 \mathrm{SG}=\mathrm{R}_{1}$-relative-PL 1 SG -SCAU-dance $\mathrm{R}_{2}$-SCAU-come.GER
'Bringing my parents, make them dance with me.' (AP, 138) ${ }^{[24}$

### 5.7.2 Incorporation

One type of incorporation, namely that of possessed roots and their possessors, has already been discussed in Section [5.3. This section discusses a different type of incorporation.

Nominal incorporation is a type of composition that inserts a lexical root into a verbal stem (Sapir 1921; Mithun 1984). At the same time, it can be a valency changing device, because the incorporation of a non-possessed noun with the undergoer function (205I) reduces by one the number of independent syntactic arguments in the core. This turns the predicate into an M-intransitive predicate because incorporated lexical roots have low categoriality (Hopper and Thompson 1984, 711-714) ${ }^{23}$. The incorporation of unpossessed nouns results in a non-referential reading, as the translations of the examples in (205) indicate ${ }^{26}$ (1984, 856).', and being non-referential, it cannot refer to a specific 'affected' participant, which is what the undergoer has to be. Therefore, this second argument of the activity predicate is a syntactic argument of the core and a semantic argument in the se-

[^73]mantic representation, but it is not a macrorole. As such, there is only one macrorole in this type of activity predicate. The difference between I drink beer (non-referential) and I drink a/the beer (referential) is that the former is an activity and the later an active accomplishment (see Section [3.3]). The second argument of an activity predicate characterizes the action rather than describing a participant, and as such, it does not function as an undergoer macrorole.

The following examples are illustrative.
a. $A i^{\beta}$ iraPa $\beta$
a-i $\beta$ ira-Ra $\beta$
1SG-tree-cut
'I cut trees.' (FA, 145)
b. APiasa $\beta$
a-fi-asa $\beta$
1SG-river-cross
'I cross rivers.' (VLB, II 67)

The structure of ( $205 \mathrm{5a}$ ) is given in Figure ( 5.8 ). The nucleus of the predicate becomes more complex after the incorporation; it can be considered a new compound word (see Van Valin UTI 2013 and Ullrich and Van Valin Jn (2007), and the predicate has one argument.


Figure 5.8: Nominal incorporation

Because incorporation reduces the valency of transitive predicates, incorporated structures are expected to combine with the causative of intransitive verbs (206), but not
with the causative of transitive verbs (see Section 5.7.11). This is in fact the case, as shown in (206).
(206) a. MoPiPu
mo- $\mathbf{i} \mathbf{i}-\mathrm{Pu}$
CAUS-water-ingest
'Make drink water / give to drink.' (VLB, I, 53)
b. Oimo?iPupe wa?
o-i-mo-?i-Ru=pe wa
3-R $2_{2}$-CAUS-water-ingest=Q PRCL
'Has he been given water? (Did he make him drink?)' (Araújo, 63)
c. $\mathrm{A} \beta \mathrm{a}$ mongawa $\beta$ o
aßa- $\varnothing \quad$ mo-kawi-Pu-aßo
person- $\varnothing$ CAUS-beer-ingest-GER
'Making people drink beer.' (Araújo, 78)

As mentioned in Section 5.3 (see Examples (161) and (162)), RPs related to the arguments may be incorporated into the core, replacing the argument indexed by a bound index. Contrary to what is suggested by Zúñiga (2020, 59-60) (quoting Mithun 1984), this is not a type of applicative. As exemplified in (207), the $\mathrm{R}_{2}$ is not indexing an additional argument; it belongs with the incorporated root, indicating the non-contiguity with the possessor (see Section 4.3.2).
a. Ajatipetek
a-[i-ati $\beta$ ]-petek
1SG-[R2-temple]-hit
'I slapped his temples.' (VLB, I, 56)
$\left[\mathbf{d o}^{\prime}\left(1 \mathrm{SG}\left[\mathbf{s l a p}^{\prime}(1 \mathrm{SG}, \mathrm{i}-\mathrm{ati} \beta \mathrm{a})\right]\right)\right]$
b. Morußisaßa $\beta$ oja amõ oso $\beta$ apetek

Moru $\beta$ isa $\beta-\mathrm{a} \varnothing$ - $\beta$ oja- $\varnothing$ amõ o-[s-o $\beta \mathbf{a}]$-petek
master-REF $\quad \mathrm{R}_{1}$-servant-REF some 3-[R2-face-hit]
'Some of the chief's servants hit his face.' (Araújo, 55v)
c. Atujuka Francisco
a-[t-uß]-juka Francisco
1SG-[R2-father-kill] Francisco
'I killed Francisco's father.' (FA, 88)

In order to explain the examples in (207), it is necessary to resort to the layered structure of the word (LSW), proposed in Van Valin .Ir (2013) for head-marking languages. ${ }^{[7]}$ The layered structure of the word has a nucleus $\left(\mathrm{NUC}_{\mathrm{W}}\right)$, which can be internally complex, and a core ${ }_{\mathrm{W}}$. Inflectional affixes are considered formatives (FRM) and are assigned to the core $_{W}$ (word core). Derivation, therefore, occurs at the $\mathrm{NUC}_{\mathrm{W}}$ level and inflection at the core $_{W}$ level. Clitics are formatives that attach to words in detached positions analogous to those in the sentence. Head-marked argument indexes are assigned as formatives to the core $_{W}$. A template for the layered structure of the word, adapted from Van Valin Jr (2013), is provided in Figure 5.9.


Figure 5.9: The layered structure of the word

Thus, the representation of (207a) would be as in Figure 5.10 .


Figure 5.10: Layered structure of a word with noun incorporation

Through the LSW, inflectional properties of words are accessible to syntax, as suggested by Van Valin Ir (2013). The inflectional affixes in the core of the word (coreW) also

[^74]instantiate the core arguments in the core of the clause - both cores are coextensive, the nucleus of the word is also the nucleus of the clause, and the argument-signaling indexes in the core ${ }_{W}$ are the core arguments.

The example above can be compared with (208), where $s$-e $\beta i r a$ is related to the argument but is not the core argument, since $i$ is the core argument.

```
(208) Seßira ajpetek
    [s-e \betair-a]j a a i-ij-petek
    R2-buttocks-REF 1SG-R2-hit
    'I slapped his buttocks.' (VLB, II, 135)
    [do'(1SG[slap'(1SG,i[se \betaira)])]
```

Another possibility is the incorporation of a whole possessed phrase, as in (209). The incorporated object and the predicate build a complex nucleus, and the RP is fully referential. The argument marked by the postposition is an oblique core argument. Examples such as (20Y) are only attested a couple of times.

```
(209) NaferaPipotari
nerese
N-a-fe=r-a?ir-potar-i ne=r-ese
NEG-1SG-1SG=R1
```

'I do not want you as a son (lit. I do not want my son as you).' (FA, 124)

Another possibility is the incorporation of the possessed RP without the possessor. This case is similar to (207a), but with a possessor RP in the ECS ${ }^{\boxed{28}}$ of the possessor and not the possessed incorporated noun.

```
(210) Aikomojay \interußa
a-[i-ko]-mojay }\quad\int==r-u\beta-
1SG-[R2-slash]-make 1SG=R1
'I do my father's slash." (FA, 87)
```

Other examples similar to those in (207a) are given in (211):

[^75]a. Asakami?ok
a-s-akami-Rok
1SG-R 2 -fork-rip.out
'I rip out the fork (of a branch).' (VLB, I, 142)
b. Aiakajeki-ekij
a-i-akay-eki-ekij
1SG-R2-head-RED-pull
'I repeatedly pulled his head." (VLB, I, 142)
c. Atuparuy aßati
a-t-upa $\beta$-ruy $\quad$ a $\beta$ ati- $\varnothing$
1SG-R2-lay-establish corn-REF
'I established (laid out) a corn plantation.' (VLB, II, 81) ${ }^{\text {RII }}$

The cases above are somewhat similar to reflexives, although reflexives display an intermediate status between one and two-argument predicates (Hopper and Thompson 1980), as shown in (2/2).

```
(212) Ojepoej tePija remiep}\mp@subsup{}{}{j}\mathrm{ akamo
    o-je-po-ej t-e?ij-a r-emi-ep j}\mathrm{ ak-amo
    3-RFLX-hand-wash R3-crowd-REF R 1-RES-see-TRSL
'He washed his (own) hands being seen by the crowd.' (Araújo, 61)
```

The most interesting case of incorporation concerns ditransitive predicates with partial incorporation of the undergoer argument. This is the case of an undergoer possessed RP where only the possessed root is incorporated and the recipient is not an RP but an argument index. In this case, the undergoer is the first argument of the state predicate have ${ }^{\prime}$ $(x, y)$, rather than the second, as one would expect based on the AUH (see Figure 3.18). This is a case of an argument which has a thematic relation other than patient serving as undergoer (see Van Valin In 2005, 61). This is illustrated in (213). Figure (5.1]) represents the structure of (213b).
a. AitaPi-mePen Pedro a-i-[t-aìir]-me?en Pedro 1SG-R2-R2-son-give Pedro
'I give him/her/them Pedro's son.' (AA, 51)

[^76]b. Aijaome? $\quad$ Pedro
a-i-[i-aoß]-me?en Pedro 1SG-R $2_{2}$-[R $\mathrm{R}_{2}$-cloth]-give Pedro
'I give him/her/them Pedro's clothes.' (AA, 51)


Figure 5.11: Incorporation of possessed noun

Examples like those in (213) are only attested in Anchieta (1595), while examples such as those in ([62) are more frequently attested, even in a later source such as Bettendortt (1681). Further examples are given in (214).

[^77]
### 5.7.3 Antipassives: poro and mbaPe

Following Janic and Witzlack-Makarevich (2021), the antipassive is here treated as an intransitive construction in which: (i) the same verb with the same lexical meaning is also found in a transitive construction; (ii) the actor in the transitive construction is encoded as the sole argument of the intransitive construction in the corresponding antipassive construction; and (iii) the undergoer in the transitive construction is either encoded as an oblique or left unexpressed in the corresponding antipassive construction. Through this demotion of the patient argument, the antipassive construction increases the relative topicality of the actor and consequently decreases the relative topicality of the patient argument (Givón 1994). The antipassive markers in TUP are poro 'human' and mape 'non-human, thing'. These meanings are associated with a widespread feature in the Americas: their grammaticalization into antipassives $\left(\operatorname{Say}[2021)^{130}\right.$. They are also associated with another crosslinguistically common feature, namely that antipassives are commonly found when the object is non-specific or indefinite (Hopper and Thompson 1980; Foley and Van Valin Jr 1985). The presence of two antipassives distinguishing between human and non-human markers is also cross-linguistically common (Janic and Witzlack-Makarevich 2021, 10).

An important characteristic of the antipassive construction, as the examples in this section will show, is the fact that they tend to express habitual, incomplete or non-punctual events (see Cooreman 1994, 57), with the demoted undergoer interpreted as non-referential, indefinite or generic in nature (Janic and Witzlack-Makarevich 2021, 3).

The example in (215) illustrates the difference between an active and an antipassive construction: (215a) is an example of a transitive construction, unmarked in the active voice, with the bivalent verb su?u 'bite'. The verb su?u 'bite' is used with the same lexical meaning in the intransitive construction in (215b), with a single argument and poro 'human' as the antipassive marker.

[^78](215)
a. AisuPu
a-i-suPu
1SG-R2-bite
'I bite it.' (D'Evreux, Viagem, 158)
b. Moja oporosu?u
moj-a o-poro-su?u
snake-REF 3-ANTIP ${ }_{\text {antip }}$-bite
'The snake bites people.' (FA, 6)

Following Rose (2011, 265-266), I do not consider the prefix poro to be a lexical root since it is not attested as such; it never combines with possessor indexes, nor does it modify other nouns. Rather, poro is a grammaticalized morpheme with the unique function of indicating a human indeterminate participant. That a predicate with poro is intransitive is corroborated by its co-occurrence with the causative mo-, as in (216) (see Section 5.7.1.1):
(216) Imoporoamotare?ima
i-mo-poro-amotar-e?im-a
$\mathrm{R}_{2}$-CAUS-ANTIP-love-PRIV-GER
'Causing them to hate people.' (DC II, 103)
(217)
a. Aporojaj
a-poro-jaj
1SG-ANTIP-make.fun
'I make fun of people.' (VLB I, 123)
b. OporomoPeaPu Tupã jePeya raPaya
o-poro-moPe-a?u Tupã $\varnothing$-je?ey-a r-aPay-a
3-ANTIP-teach-false God $\mathrm{R}_{1}$-speech-REF $\mathrm{R}_{1}$-experience-REF
'Falsely teaches people to experience the word of God.' (AT, 136)
c. Oporomoiyoßémo?anga
o-poro-mo-ikoße-mo?ay-a
3-ANTIP-CAUS-live-pretend-GER
'Pretending to make people live.' (Araújo, 160)

The non-human counterpart of poro is ma?e which, besides indicating an indeterminate non-human participant, is a regular lexical root meaning 'thing'. The predicate that
incorporates maPe becomes intransitive (218) and, as such, may be causativized and have its valency increased (218b):

```
a. AmaRe?u neswi
    a-maPe-?u ne=\varnothing-swi
    1SG-ANTIP-eat 2SG=R
    'I eat (something/things) without you.'(AA, 43)
    b. A\betaa nojmomaPePuj
    a\betaa-\varnothing na-o-i-mo-maPe-Pu-j
    person-REF NEG-3-R2-CAUS-thing-eat-NEG
    'The man does not feed it.'(Araújo, 11)
```

Although synchronically poro and maPe seem to have a similar function, only differing according to the human/non-human parameter, they clearly have a different origin. While poro- is a prefix, ma?e 'thing' is a lexical item which, as such, can be incorporated. In (217d), the causative follows poro-, while in (218b), it precedes mape.

### 5.7.4 Reflexive, middle, and reciprocal voice

This section describes reflexive and middle constructions. Both types of constructions are in the same section for two reasons: (i) as observed by Zúñiga (2020, 151), many authors within the functional-typological tradition have treated them in a somewhat related way; and (ii) the same morpheme marks both functions in TUP, as in other TG languages.

### 5.7.4.1 Reflexive

A reflexive construction is a grammatical construction with two coreferential participants which are marked by a special form, a reflexivizer, which signals this coreference (Haspelmath 2021 a$)^{31]}$. These constructions have one argument but two semantic roles. In RRG terms, this means that for the construction to be grammatical, the reflexive pronoun must not be higher in the AUH (see Fig. B.I8) than its antecedent. This means that RRG treats reflexivity semantically, i.e., with actors binding undergoers or agents binding patients, but

[^79]not the other way around. ${ }^{[2]}$

Tupinambá uses the reflexive voice marker prefix as its reflexivization strategy (see Haspelmath 2021a and Van Valin Jr and LaPolla 1997, 392-417). This takes the form of a verbal prefix, $j e-$, which indicates the coreference of two participants of a verb, i.e., the actor and undergoer are linked to the same argument index. This morpheme is always bound to the predicate, occupying the slot reserved for the undergoer as in (219). This prefix reduces the M-transitivity of the predicate, since it combines with morphemes exclusively used with intransitive verbs, such as the causative in (221). Some examples of the reflexive construction are given in (219). Note that these are examples of a complete reflexive construction. Thus, they cannot be analyzed as involving coreference between two distinct referring expressions. Rather, this construction may be best analyzed as involving the linking of actor and undergoer to the same argument marker, as the representation of (219a) given in Figure 5. 2 indicates.
a. Ajeka
a-je-ka
1SG-RFLX-break
'I broke myself.' (VLB II, 92)
b. Ajeãj
a-je-ãj
1SG-RFLX-wrinkle
'I wrinkle myself (I frown).' (VLB I, 117)

In the case of a possessive predication, the reflexive may be preceded by a relational of non-contiguity, as in (220).
(220) í $\beta$ íramo ijemojaŋine
i $\beta$ ir-ramo i-je-mojay=ne
earth-TRSL R2-RFLX-transform=FUT
'He will transform himself (in something) like the earth.' (DC I, 161)

[^80]

Figure 5.12: Reflexive linking in TUP
a. Ajeran
sese
a-je-ran
s-ese
1SG-RFLX-rude $\mathrm{R}_{1}$-against
'I get angry at him.' (VLB, II, 103)
b. Mojeran
mo-je-ran
CAUS-RFLX-rude
‘Cause to irritate oneself.' (VLB, II, 89)

It is not uncommon for coreferential constructions not to be treated as reflexive constructions Haspelmath (2004). The relational morpheme ( $\mathrm{R}_{3}$ ) (see Section 4.3.2) could well be considered an anaphoric adpossessor modifying the object and be interpreted as coreferential with the subject.
(222)
a. Pedro ojuka ogußa

Pedro o-i-juka o-u $\beta$-a
Pedro 3-R $\mathbf{R}_{2}$-kill $\mathbf{R}_{3}$-father-REF
'Pedro killed his own father.' (AA, 16)
b. Otupãnamo taferereko
o-tupã-ramo ta-fe=r-ereko
$\mathbf{R}_{3}$-God-TRSL HORT-1SG=R1-treat
'May I be as their own God.' (Araújo, 160)

### 5.7.4.2 Middle

The middle voice is more difficult to define than the reflexive. The first reason is that different grammatical traditions define it by different criteria; however, the main reason is that what is referred to by the term 'middle voice' in the literature has a wide range of meanings (see Zúñiga 2020, 171). Thus, there seems to be no agreement on what counts as a middle marker cross-linguistically (Inglese 2021).

As with reflexives, middle constructions have a unique referent but two semantic roles. The ACT is simultaneously the causer and UND (patient or goal), but as Kemmen (1994, 181) points out, there is a semantic property which subsumes the notion of subject-affectedness that is crucial to the nature of the middle. This semantic property, which she terms 'relative elaboration of events', 'is the parameter along which the reflexive and the middle can be situated as semantic categories intermediate in transitivity between one-participant and two-participant events, and which, in addition, differentiates reflexive and middle from one another'.

Here, the ten situation types ${ }^{[33]}$ or pragmatic contexts from Kemmer (1994) are employed to categorize the middle voice in Tupinambá. This combination differentiates the middle from the reflexive construction. ${ }^{[34]}$. Although the middle marker and the reflexive voice marker are the same, $j e-$, the marker in middle function is here glossed as MID. ${ }^{[3]}$
(223) Grooming or body care

Seakaya mojewaka
$\int \mathrm{e}=\varnothing$-akay-a mo-je-wak-a
$1 \mathrm{SG}=\mathrm{R}_{1}$-head-REF CAUS-MID-embellish-GER
'Adorning my head.' (Poemas, 152)

[^81](224) Nontranslational motion
a. Ajere $ß j e r e ~ \beta ~$
a-je-re $\beta$-jere $\beta$
1SG-MID-turn.over-RED
'I keep on turning over (and over).' (VLB, I, 127)
b. Ojeai $\beta \mathrm{ik}$
o-je-aißik
3-mid-lower.the.head
'He lowered his head.' (Araújo, 63v)
(225) Change in body posture
a. Erejeapik
ere-je-apik
2SG-MID-sit
'You sit (down).' (DC, II, 92)
b. Ajepiso witupa
a-je-piso wit-u $\beta$-a
1SG-MID-stretch 1SG $_{\text {Corf- }}$ lie-GER
'I lie stretched out.' (VLB, I, 129)
(226) Translational motion

Jeupir
je-upir
MID-go.up
‘Rise / go up.' (VLB, II, 119)
(227) Indirect middle

b. Tekorama ri jeapisaka
t-eko-ram-a $\quad \varnothing$-ri je-apisaka
R $_{4}$-be-FUT-REF $R_{1}$-POSP MID-pay.attention
'Pay attention to future deeds.' (Araújo, 19v)
(228) Emotion middle

Ajemoiro
a-je-mo-irõ
1SG-MID-CAUS-angry
'I got angry.' (Teatro, 44)
(229) Emotive speech actions
a. Ejapirõ
e-je-apirõ
2SG.IMP-MID-complain
'Complain.' (Teatro, 44)
b. Tijeroßjar apo a $\beta$ a ri
t-ja-je-ro $\beta$ jar apo a $\beta$ a- $\varnothing$ ri
HORT-1PL.INCL-MID-believe this man-REF OBL
'May we trust these men.' (Léry, Histoire, 354)
(230) Cognition middle

Ojeaŋerekóßo oaŋajpawera rese
o-je-aŋjerekó- $\beta$ o o-aŋajpa $\beta$-wer-a r-ese
3-MID-thinking-GER CORF-wickedness-PST-REF $\mathrm{R}_{1}$-about
'Thinking about your wickedness.' (Araújo, 74v-75)
(231) Spontaneous events

Jekij!
je-kij
MID-grow
'To grow! (person, animal, tree).' (VLB, I, 85)

Once the whole Tupinambá corpus is fully available in searchable format it will be possible to provide a full account of verbs that can take the middle voice marker based on the definition requiring that the construction has with the following characteristic, from Inglese (2021):
i. it occurs with bivalent (or more) verbs to encode one or more of the following valency changing operations: passive, anticausative, reflexive, reciprocal, antipassive;
ii. the same construction is also obligatory with some (at least monovalent) verbs that cannot occur without middle markers;
iii. the semantics of (at least some of) the verbs in (i) does not match that of those in (ii) or vice versa.

### 5.7.5 Reciprocal verb constructions

Adding jo- to an M-transitive predicate in the undergoer slot creates a predicate in whose logical structure, predicate ${ }^{\prime}(\mathrm{x}, \mathrm{y})$, the x and y arguments are simultaneously reciprocal. The prefix jo- allows both actors to be merged into one macrorole, leaving the undergoers of the action implicit. Example (232) shows a reciprocal predicate with its logical structure.
(232) Pejojuka
pe-jo-juka
2PL-RECP-kill
'You kill each other.' (FA, 80)
do $^{\prime}\left(2 \mathrm{PL}, \varnothing\right.$ CAUSE $\left[\right.$ BECOME dead $\left.{ }^{\prime}(3)\right] \wedge$ do $^{\prime}\left(3, \varnothing\right.$ CAUSE $\left[\right.$ BECOME dead ${ }^{\prime}$ (2PL)]
(233)
a. $\mathrm{A} \beta \mathrm{a}$ mojoamotare?imuka $a \beta a-\varnothing \quad$ mo-jo-amotar-e?im-uka- $\varnothing$ person-REF CAUS-RECP-like-NEG-CAUS-GER
‘Causing people to hate one another.' (Diálogo, 215)
b. Orojoapiapi
oro-jo-api-api
1PL.EXCL-RECP-hit-RED
'We keep on hitting each other.' (VLB, II, 32)

When postpositions combine with the reflexive, the reciprocal jo-may alternate with the reflexive $j e$ - having reflexive function, as in 234.
a. Atupãmojeta fejoese
a-tupã-moŋeta $\int \mathrm{e}=\mathbf{j o}$-ese 1SG-God-talk 1SG=RFLX-POSP
‘I pray for myself.' (FA, 82)
b. Pedro toimojeta ojoese

Pedro t-o-i-mojeta o-jo-ese
Pedro HORT-3-R2-pray 3-RFLX-POSP
'May Pedro pray for himself.' (FA, 82)

```
c. Ojeswi imorẽuka ase rese
    o-je-swi i-mo-Pẽ-uka ase r-ese
    3-RFLX-from R2-CAUS-leak.out-CAUS.GER we R R -POSP
    'The outpouring of himself for us.'(Araújo, 43)
```

Speaking about reciprocals, Haspelmath (2021a) observes that there is a universal of reflexive constructions according to which 'if a language has a reflexive voice marker, it also has a voice marker for reciprocal constructions' (see also Dixon 2010b, 141). In TUP, the reciprocal voice marker is jo-. The controller in a reciprocal construction must have a plural reference, as in (235).
(235) Orojoapi
oro-jo-api
1PL.EXCL-RECP-hit
'We hit each other.' (VLB, II, 32)
$\mathbf{d o}^{\prime}\left(1\right.$ PL.EXCL, $\left[\right.$ hit $^{\prime}(1$ PL.EXCL, 2 SG$\left.\left.)\right]\right) \wedge \mathbf{d o}^{\prime}\left(2 \mathrm{SG},\left[\right.\right.$ hit $\left.\left.^{\prime}(2 \mathrm{SG}, 1 \mathrm{SG})\right]\right)$

In (235), the actor is talking to someone other than the undergoer, since the form oro- excludes the hearer, in contrast to (236). Nonetheless, both cases remain ambiguous regarding the grammatical number of the undergoer, as it could be plural or singular.
(236) Mewue jajomojeta
mewue ja-jo-moneta
low.volume 1PL.INCL-RECP-talk
'We talk to each other quietly.' (Teatro, 148)

Dixon (2010b, 147-151) notes that reciprocal constructions are also possible when the number of participants is greater than two, whether they are specified or not. Such a case would allow for different interpretations. Consider (237), where the topic of the discourse is the inhabitants of a village. At one point, Aimberé talks about some of them as in (237):

```
(237) Ojoapisapisapa
    o-jo-apisa }\beta\mathrm{ -pisa }\beta\mathrm{ -a
    3-RECP-wound-RED-GER
    '(They are) wounding each other continuously.' (Teatro, 36)
```

Here it is not necessarily implied that all of them wound each other (full reciprocal), but that some - not all - of them wound each other.

### 5.7.6 Is there a passive voice in TUP?

Both authors of the grammars in Anchieta (I595, 35-35v) and Figueira (1687, 86, 90-91) agree that the prefix $j e$ - 'reflexive marker' can also be used to indicate the passive, as in (238):

```
    a. Ojenu \(\beta\)
    o-je-enu \(\beta\)
    3-RFLX-hear
    'It is heard.' (Anchieta, 35)
    b. Ajemojãy
    a-je-mojãy
    1SG-RFLX-make
    'I am made.' (Anchieta, 35)
    c. Aje?u
    a-je-Pu
    1SG-RFLX-eat
    'I eat myself / I am eaten.' (FA, 90)
    d. Ajejuka
    a-je-juka
    1SG-RFLX-kill
    ‘I kill myself / I am killed.' (FA, 86)
```

Nonetheless, there is no attestation (in either Anchieta or Figueira) of a reflexive construction with the optional oblique argument (the effector), i.e., an agentless passive. The example (238a) is the only example attested which is not third person in any TUP text.

In Araújo (1618b), some occurrences of $j e$ - with no reflexive meaning are actually instances of an impersonal construction.

| Tojemojãy | neremimotara |
| :--- | :--- |
| t-o-je-mojãy | ne=r-emi-potar-a |
| HORT-3-RFLX-do | $2 S G=R_{1}-$ DEV $_{\text {PASS }}$-want-REF |

'May your will be done / may one do your will.' (Araújo, 13v)

In the recently transcribed TUP letters (Navarro 2022), the following example is found. Navarro (2022) adds a footnote saying that the reflexive marker became a passive marker in Colonial Tupi, but the evidence supporting this claim is scarce.

| (240) | NojemeReni | jeí | ãwa supe quartel |
| :--- | :--- | :--- | :--- |
| n-o-je-me?ey-i | jeí | ãwa supe quartel |  |
|  | NEG-3-RFLX-give-NEG today.past DEM to | quartel |  |

'Their lives were not spared today.' (CC, 1) ${ }^{136}$

The lack of examples with an effector expressed by an oblique constituent, along with the fact that $j e$ - is rarely attested with a passive meaning, and when it does occur, this can be interpreted as an impersonal, may be taken as evidence that TUP did not have a passive construction. Either the Jesuits misunderstood the matter, influenced by the impersonal construction in Portuguese, which uses the same marker as the passive construction (-se), or the lack of examples is just a coincidence, though an improbable one. The lack of a passive is also attested for Old Guaraní, where $j e$ - has either a reflexive, middle, or impersonal reading (see Restivo [724, 63). The examples of passive constructions provided in this section probably exhaust the examples of passive constructions in the whole TUP corpus. The passive voice should not be considered part of the grammatical inventory of TUP. The evidence from the texts and the comparison with other TG languages support this fact. The examples in (238) are difficult to explain and could be a case of imperfect learning or a Jesuit attempt to shape the language.

[^82]
## The Layered Structure of the Clause

Following the general discussion of the LSC in Section (3.L.Cl), this section presents the LSC and syntactic templates for TUP beyond the basic clause patterns presented in Chapter 5.

### 6.1 PrDP

The PrDP hosts elements set off by a pause, such as adverbials or topical information. There is often coreference of an argument in the clause with an element in the PrDP, such as a resumptive pronoun, as in (24Ib), where the free pronoun ene 'you' marks the topic. The syntactic template for the PrDP is given in Figure 6.11. The representation of (241a) is given in Figure (6.27).


Figure 6.1: PrDP template
(241)

| a. | Kwese, | karaíßari |
| :--- | :--- | :--- |
| $\mathrm{k}^{\mathrm{w}}$ ese | karaí $\beta$-a-ri | ipokoki |
| yesterday non-indian-REF-POSP $\mathrm{R}_{2}$-attack- NFOC |  |  |
|  | 'Yesterday, the white men were attacked.' (AT, 30) |  |



Figure 6.2: Sentence with pre-detached position
b. $\left[[\text { Ene }]_{\text {PrDP }},\left[[\text { neji } ß \text { ápe }]_{\text {Periphery }}[\text { Jesu }]_{\text {ECS }}[\text { eresupi }]_{\text {core }}\right]_{\text {CLAUSE }}\right]_{\text {SENTENCE }}$
ene ne $=\varnothing$-ji $\beta$-pe Jesu ere-s-upi
you 2 SG-REF-arm-LOC Jesus 2 SG-R2-lift
'You, you carried Jesus in your arms.' (Poemas, 118)

Another example of a topical RP in the PrDP is given in (242):
(242) Tupinamba Parawasupenarwera, itupã osißaPep ${ }^{w}$ era

Tupinamba Parawasu-pe-sar-wer-a i-tupã o-sik- $\beta$ aRe-pwer-a
Tupinambá Paraguasu-LOC-NMLZ-PST-REF R2-God 3-rub-REL-PST-REF
opakatu jamopa
opa-katu ja-mo-pa $\beta$
all-INTS 1PL.INCL-CAUS-finish
'The Tupinambá who were in Paraguasu, who rubbed (the statue of) their Gods, we exterminated them.' (Teatro, 16)

There can be multiple units in the PrDP, as in [243! ${ }^{\text {I }}$
(243) Jemoirõ, morapiti, jo?u, tapuja rara, je-moirõ- $\varnothing$ poro-apiti- $\varnothing$ jo-Ru- $\varnothing$ tapuj-a r-(j)ar-a RFLX-anger-REF ANTIP-slay-REF RECP-eat-REF foreigner-REF $R_{1}$-capture-REF awasá, moropotara, majana, siwaraji, awasá- $\varnothing$ poro-potar-a majan-a siwaraji- $\varnothing$
concubinage-REF ANTIP-want-REF pimping-REF prostitution-REF

[^83]| najpotari | aßá | sejara |
| :--- | :--- | :--- |
| n-a-i-potar-i | aßá- $\varnothing$ | s-ejar-a |
| NEG-1SG-R2-want-NEGman-REF | R $_{2}$-abandon-REF |  |

'Getting angry, slaughtering people, eating each other, capturing tapuias, concubinage, sensual desire, covetousness, prostitution, I don't want anyone to abandon these.' (Teatro, 10)

### 6.2 Pre-core slot (PrCS)

The PrCS is restricted to main clauses due to its association with contrastive focus (244d), since the scope of illocutionary force does not extend to outside the clause level. It is the position for focal (narrow-focus) elements and WH-words in languages in which these occur ex situ, such as TUP. It can be occupied by focal arguments and adjuncts, as in (244), in which case the adjuncts are not set off by a pause, as when they occur in the $\operatorname{PrDP}$ (see Section 6.ل.1). The PrCS also hosts question words, as in (244e).

| a. Awje kunumíwasu oekoai $\beta$ ete | ojomim |  |
| :--- | :--- | :--- |
| awje kunumi-wasu- $\varnothing$ | o-eko-aiß-ete | o-jo-mim |
| finally boy-big-REF | 3CORF-deed-evil-INTENS 3-R 2 -hide |  |
| 'Finally the boys hide their evil deeds.' (Teatro, 40). |  |  |

b. Emonã kori aikóne
emonã kori a-iko=ne
thus today 1-be=FUT
‘Today I shall act this way.' (Araújo, 99v)
c. Peróte toso

Pero=te t-o-so
Pedro-FOC HORT-3-go
'May Pedro (not someone else) go.' (VLB, I, 36)
d. Sekóte ipofiete
s-eko=te i-pofi-ete
$\mathrm{R}_{2}$-life-FOC $\mathrm{R}_{2}$-bad-INTS
'His life (not something else) is very bad.' (Teatro, 30)
e. MbaPepe ke kanineo $\beta \dot{i}$ jaswara?
mbaRe=pe ke kanine-o $\beta \dot{\mathrm{i}}-\varnothing$ jaswar-a
thing $=\mathrm{Q}$ here macaw-blue-REF similar-REF
'What is here similar to a blue-yellow macaw?' (Teatro, 64)
f. $\mathrm{A} \beta \mathrm{a} \beta$ épe Tupã noimoetei?
a $\beta$ - $\beta$ е $=$ pe $\quad$ Tupã n-o-i-mo-ete-i
person-also-Q God NEG-3-R2-CAU-INTENS-NEG
'Who else does not honor God.' (Araújo, 66)
g. Mamõpe âe ißoja sow aPerire?
mamõ=pe aRe i- $\beta$ oja- $\varnothing$ so-w aPe-r-ire
where $=\mathrm{Q}$ DEM $\mathrm{R}_{2}$-disciple-REF go-NFOC this-R $\mathrm{R}_{1}$-after
'Where did these disciples of his go afterwards?' (DC, I, 170)

WH-words in TUP always occur ex situ, in the PrCS. Some of these words are shown in Table 6.1]. All words are given with the question clitic $=p e$. The words without the question clitic and their meanings are given in the two rightmost columns.

| WH-word | Meaning | Lexeme | Meaning |
| :---: | :---: | :---: | :---: |
| $\mathrm{MaPe}=\mathrm{pe}$ | what, which | mape | thing |
| Marã=pe | which, how | marã |  |
| Marãmarã=pe | wich (plural) |  |  |
| MaPemaPepe | what, which (plural) |  |  |
| A $\beta \mathrm{a}=\mathrm{pe}$ | who | a $\beta$ a | person |
| $A \beta \mathrm{aa} \beta \mathrm{a}=\mathrm{pe}$ | who (plural) | aßa | person |
| Marãyatu=pe | how |  |  |
| Mamõ=pe | where | mamõ | where |
| Umã=pe | where | umã | where |
| Moßipe | how many |  |  |
| Marãramo=pe | Why | marã + ramo | anything + translative |

Table 6.1: Some WH-words in Tupinambá
a. MaPepe erejpotar?
$\mathbf{m a P e}=\mathbf{p e}$ ere-i-potar
thing $=\mathbf{Q} \quad 2$ SG-R $_{2}$-want
'What do you want?' (Léry, 347)
b. MaRepe amõ?
maPe=pe amõ
thing $=\mathbf{Q}$ other
‘Which other? / What else?' (Léry, 343)
c. Marãpe peroßajara rera?
marã=pe pe=r-oßajar-a r-er-a
What $=\mathbf{Q} 2$ PL= $R_{2}$-enemy-REF $R_{2}$-name-REF
'What is the name of your enemies?' (Léry, 354)

| d. | Mo $\beta$ ipe | tu $\beta$ isakatu | ki $\beta \tilde{o} ?$ |
| :--- | :--- | :--- | :--- |
| mo $\beta \mathbf{i}=\mathbf{p e}$ | t-u $\beta$ isá $\beta-$ katu $-\varnothing$ | ki $\beta \tilde{o}$ |  |
|  | how.many $=\mathbf{Q}$ | R $_{4}$-chief-good-REF | around.here |

'How may great chiefs are there around here?' (Léry, 350)

### 6.3 Extra-core slot (ECS)

In head-marking languages ${ }^{[\square}$ such as TUP, bound argument indexes saturate the valency requirements of the predicate (Van Valin Ir 1977, 1985, 2013) (see Section 5.7.2). Syntactically optional RPs coreferential with the bound argument indexes are not core arguments because the core arguments are bound to the head. Following Haspelmath (2013), I use the term conominal to refer to these RPs. Van Valin Ir (2013) places these RPs in the ECS, a position only found in head-marking languages. This position is structurally analogous to the PrCS or PoCS because it is also a daughter of the clause node. These RPs must be instantiations of the core arguments with no fixed order in relation to the core (see Section 5.6), as in (246):
a. $\left[[\text { AjmomaReete }]_{\text {CORE }} \quad[\text { ne-r-oka }]_{\text {ECS }}\right]_{\text {CLAUSE }}$
a-i-mo-maPe-ete ne=r-ok-a
1SG-R2-CAUS-thing-good $2 \mathrm{SG}=\mathrm{R}_{1}$-house-REF
'I honour your house.' (Poemas, 170)
b. $\left[[\text { Nerokangaturamwama }]_{\text {ECS }} \quad[\text { orojmoí }]_{\text {CORE }}\right]_{\text {CLAUSE }}$
ne=r-ok-angaturamwam-a oro-i-mo-in
2SG=R1-house-holy-FUT-REF 1PL.EXCL-R ${ }_{2}$-CAUS-be.still
'We build your holy house.' (Poemas, 146)
c. $\left[\left[\text { Osap }{ }^{j} \text { ape }\right]_{\text {CORE }}\right.$ [ase ije?enga $\left.\left.]\right]_{\text {ECS }}\right]_{\text {CLAUSE }} \ldots$ ?
$o-s-a p^{j} a=p e$ ase $i-j e ? e \eta-a$
3-R2-obey=Q PRON R $2_{2}$-speech-REF
'Will one obey our words?' (DC, I, 224)
d. Noik ${ }^{\mathrm{w}}$ aßipe taPa kawaramo Jereko?
n-o-i-kwa $\beta$-i=pe taPa kaPu-ar-amo $\quad$ eer-eko- $\varnothing$
NEG-3-R $2_{2}$-know-NEG=Q sir beer.drink-NMLZ AG -TRSL $1 \mathrm{SG}=\mathrm{R}_{1}$-be-REF
'Doesn't the master know that I am a drinker?' (AT, 136)

[^84]```
e. Nojnupãiswétepe a\betaa oaPira
N-o-i-nupã-i-swe-te=pe a\betaa-\varnothing o-aPir-a
NEG-3-R2-hit-NEG-NEG.FUT-FOC=Q man-REF CORF-son-REF
oemiawsußane?
o-emiawsu }\beta\mathrm{ -a=ne
CORF-slave-REF=FUT
'But won't the man punish his own son and his own slave?' (Araújo, 69v)
```

It has been claimed by Haspelmath (2013) that Van Valin Ir and LaPolla (11997) and Bresnan and Mchombo (1987) support the 'dual-nature view' of bound arguments, according to which the presence of a lexical RP makes the bound arguments agreement markers, and in their absence, the bound arguments are the arguments (see Bohnemeyer et al. 2016). In fact, RRG does not subscribe to the analysis in Bresnan and Mchombo (1987) on RPs functioning as subject and agreement preferring the term 'coreference' to 'agreement' since it considers the latter notion more Eurocentric than universal. Additionally, Van Valin Ir (2013) considers co-indexed RPs as being pragmatically unrestricted, since they can be topical or focal - but not the subject as in Bresnan and Mchombo (1987). In RRG, bound argument indexes are the core arguments regardless of the presence of co-indexed RPs. Van Valin Ir (2013) argues that bound argument markers are pronominal anaphors, capable of being locally bound or independently referential. RRG also distinguishes between clauseinternal topics, located in the ECS, and clause-external topics, located in the detached positions, a distinction not made in Bresnan and Mchombo (1987). In this sense, the analysis by Siewierska (2001) is not accepted here because it is unclear regarding the status of bound indexes in head-marking languages.

The ECS differs from the PrCS and PoCS in important ways (Van Valin Jr 2013). Firstly, the elements in the ECS are not associated with a specific pragmatic or discourse function, i.e., they can be focal or topical. When focal, these RPs are usually morphologically marked, as in (247a) (repeated from 244d). Secondly, they are not positionally restricted (see Section [5.6), although RPs marked by the focal -te do not appear postcore, because TUP has no PoCS, thus the ungrammaticality of (247b). Third, the PrCS/PoCS may instantiate arguments and adjuncts, while the RPs in the ECS must be instantiations of arguments.
a. Perote toso.
Peror $_{i}$-te $\quad \mathrm{t}-\mathrm{o}_{\mathrm{i}}$-so
Pero-FOC HORT-3-go
'May Pedro (not someone else) go.' (VLB, I, 36)
b. *Toso Perote.
t-o ${ }_{i}$-so $\quad$ Pero $_{i}$-te
HORT-3-go Pero-FOC
'?'
(248)

| $\left.\left.[\text { Oso }]_{\text {CORE }}\right][\beta \mathrm{e}]_{\text {PERIPHERY }}[\text { amõ maranaritekoara }]_{\text {ECS }}\right]_{\text {CLAUSE }}$ |  |  |
| :--- | :--- | :--- |
| $\mathrm{o}_{\mathrm{i}}$-So | $\beta \mathrm{e}$ | $[\text { amõ maranaritekoar-a }]_{\mathrm{i}}$ |
| 3 -go | again | other soldier-REF |

'Other soldiers went also.' (Araújo, 64)

In summary, the ECS is licensed by the cross-reference markers on the nucleus and therefore occurs exclusively in head-marking constructions restricted to cross-referenced RPs, whereas the PrCS and PoCS can accommodate other syntactic categories. A clause has exactly as many ECSs as its nucleus or nuclei carry cross-reference markers (whereas every clause has exactly one PrCS and PoCS).

### 6.4 The periphery

Section B.D. showed that the core hosts the predicate and its arguments. The periphery is the place where non-arguments are hosted, which can be of two types: phrasal adjuncts such as PPs, and non-phrasal adjuncts such as adverbs. The distinction between the core and the periphery thus corresponds to the distinction between arguments and non-arguments. There is a periphery for each of the following levels: nucleus, core, and clause, because adjuncts have scope over specific levels.

The nuclear periphery contains aspectual adverbs such as completely and continuously. Example (249), with its syntactic representation in Figure 6.3, shows the adverb $p a \beta^{6]}$ 'terminate, completely' modifying the nucleus.

[^85](249) AimaRepisirõpa $\beta$
a-i-maRe-pisirõ-pa $\beta$
$1 \mathrm{SG}-\mathrm{R}_{2}$-thing-appropriate-completely
'I took his things completely.' (VLB, I, 100)


Figure 6.3: Nuclear peripheral modifier
(250) ORu api ahẽ maRe
o-Tu api ahẽ maRe- $\varnothing$
3-eat completely INTJ thing-REF
'He completely eats things.' (VLB, II, 52)

Adjuncts like temporal adverbs (e.g. tomorrow, yesterday) and manner adverbs (e.g. quickly, carefully, violently) modify the core when they express locational or temporal features of the state of affairs coded by the core. Examples of with temporal adverbs are given in (251), with the syntactic representation of (251a) given in 6.4. Manner adverbs are shown in (252), where they relate to pace and performance.

$$
\begin{array}{lll}
\text { a. } & \text { Aseja } & \mathrm{k}^{\mathrm{w}} \text { ese } \quad \text { feroka } \\
& \text { a-s-eja(r) } & \mathrm{k}^{\mathrm{w}} \text { ese } \quad \int \mathrm{e}=\mathrm{r}-\mathrm{oka} \\
& \text { 1SG-R }{ }_{2} \text {-abandon yesterday } & 1 \mathrm{SG}=\mathrm{R}_{1} \text {-house-REF } \\
& \text { 'I left my house yesterday.' (Poemas, 112) }
\end{array}
$$

b. Tasep ${ }^{j}$ ak tawje
ta-s-ep ${ }^{j}$ ak tawje
HORT-R ${ }^{2}$-see soon
'May I see them soon.' (Léry, Histoire, 345)


Figure 6.4: Core peripheral modifier

$$
\begin{array}{lll}
\text { a. } & \text { OporomoRe } & \text { apu }  \tag{252}\\
\text { o-poro-mo-Re } & \text { aRu } \\
\text { 3-ANTIP-CAUS-say false }
\end{array}
$$

'He teaches people erroneously.' (AT, 128)
b. ARe umaní maRe mojaya
a?e umani maRe- $\varnothing$ mojay-a
DEM slowly thing-REF make-GER
'(Me) doing things slowly.' (AA, 56v)

The clausal periphery contains epistemic adverbs like probably and evidentials like evidently, speech act modifiers like honestly, and speaker attitude/judgement adverbs like unfortunately. A clausal peripheral modifier can be seen in (253]), represented in Figure 6.5.
(253) Ja omanõßo
ja o-manõ- $\beta$ o
luckily 3-die-GER
'Luckily he dies.' (FA, 163)

Sentences with multiple adverbs are not frequently attested, so it is not possible to verify, as suggested by Van Valin Jr (2005, 20), if in a sentence with more than one adverb, the adverbs are constrained by the LSC, i.e., whether adverbs related to outer operators occur further from the predicate and vice-versa.

### 6.4.1 Modifier Phrase

Van Valin Ir (2008b) proposed the notion of a modifier phrase (MP) to accommodate at-


Figure 6.5: Clausal peripheral modifier
tributive modifiers of all types, as well as adverbial modifiers and adpositional phrase modifiers. Thus, the primary syntactic categories in RRG are the RP, clause, adpositional phrase,
 ence, modification, and predication. MPs occur in the peripheries of the element modified, and they are not involved in predicative uses of lexical roots or adverbials. MPs, like PPs and RPs, also have a layered structure, a $\operatorname{core}_{\mathrm{M}}$ and a $\mathrm{nuc}_{\mathrm{M}}$, as illustrated in Figure (6.6), which represents the syntactic structure of Example (254) with a peripheral modifier at the nuclear level (degree modifiers).
(254) Kunumíporanga
kunumí-poray-a
boy-beauty-REF
'Beautiful boy.' (Poemas, 164)


Figure 6.6: Modifier phrase

Manner adverbial modifiers are at the core level. Example (255) and its representation in Figure (6.7) show an MP in the nuclear periphery. Note that degree modifiers like ete do not head phrases, and therefore cannot be in an MP.
(255) Tupã siporajete

Tupã $\varnothing$-si-poray-ete
God $\mathrm{R}_{1}$-mother-beauty-INTS
'Very beautiful mother of God.' (Poemas, 82)


Figure 6.7: Nominal modification

More examples of MPs will be discussed in Chapter (8) on RPs.

### 6.5 Operators

In RRG, elements that are in a whole domain of their own because they represent grammatical categories that are qualitatively different from predicates and their arguments are called operators. They are organized according to the range of their scope, i.e., according to which level they modify: the whole clause, the core, or the nucleus, as shown in Figure (6.8).

The next sections present Tupinambá operators according to their scope. Operators modifying the clause are presented first, followed by operators modifying the core and


Figure 6.8: RRG operator projection


Table 6.2: Tupinambá operators
subsequently followed by operators modifying the nucleus. It is worth stressing that it is a difficult task to work out the operators from written texts alone without access to native speakers.

### 6.5.1 Clause-level operators

Clause-level operators (IF, evidentials, status, and tense) show a binary grouping, with one group containing tense (TNS) and status, (ST), and the other evidentials and illocutionary force (IF). Tense and status situate the proposition expressed by the clause within temporal and realis-irrealis continua (see Comrie et al. 1985; Hornstein 1993). Evidentials indicate the epistemological basis of the state of affairs expressed, i.e., they indicate how the speaker came to be aware of the information uttered (Aikhenvald 2004), while illocutionary force specifies the type of speech act.

### 6.5.1.1 Illocutionary force

The illocutionary force (IF) operator modifies the clause, not just one of its constituent clauses. It occurs only in main clauses, i.e., clauses immediately dominated by the sentence node. Languages typically have three basic sentence types corresponding to the three types of illocutionary force ${ }^{\text {柬: }}$ declarative, imperative, and interrogative sentences. Bybee (1985, 22) defines illocutionary force ('mood') as an indication of 'what the speaker wants to do with the proposition' in a particular discourse context. In other words, IF is a grammatical reflection of the speaker's purpose in speaking. It would appear that every language has the means to express the major types of illocutionary force, and many can also express minor types, such as those given in Table (6.3). These categories of illocutionary force will comprise a system within a language and will be mutually exclusive, since it is impossible to mark a sentence as both declarative and imperative, for instance.

|  | Speech act | Sentence Type |
| :---: | :---: | :---: |
| Major | Assertion | Declarative |
|  | Question | Imperative |
|  |  | Interrogative |
| Minor | Exhortation | Hortative |
|  | Assert not true | Optative |
|  | Subjunctive |  |

Table 6.3: Categories of Illocutionary Force

The examples in (256) show some matches between speech act and sentence. The example in (256a) was already perceived by Anchieta as a mismatch.
a. Asótepe ise?
a-so-te=pe ise
1SG-go-FOC=Q I
'Did I go (by the way)?/I didn't go!' (AA, 36)
b. Assertion in declarative form

[^86]| Apiaßa | karai $\beta$ a | atuasa $\beta$ a |  | ojko |
| :---: | :---: | :---: | :---: | :---: |
| аріа $\beta$-a | karai $\beta$-a | atua-sa $\beta$-a | kori | o-iko |
| natives-REF | christian- | companion | toda |  |

c. Question in interrogative form

| MaRepe ereru | nekaramemuã | pupe? |
| :---: | :---: | :---: |
| $\mathrm{maPe}=$ pe ere-ero-u | ne $=\varnothing$-karamemuã- $\varnothing$ | $\varnothing$-pupe |
| thing=Q 2SG-CAUS.SOC-come | $2 \mathrm{SG}=\mathrm{R}_{1}$-box-REF | $\mathrm{R}_{1}$-LOC |
| 'What did you bring | éry, 343) |  |

d. Command in imperative form

| Eje?en $\quad$ koPir! |  |
| :--- | :--- |
| e-je?en $\quad$ ko?ir |  |
| 2SG.IMP-speak now |  |
| 'Speak now!' | Staden, 154) |

e. Command in interrogative form
f. Marãpe nerejemimi?
marã=pe n-ere-je-mim-i
why=Q NEG-2SG-RFLX-hide-NEG
‘Why don't you hide yourself?' (AT, 34)

The association of speech act with sentence type allows for cases of indirect speech acts, in which one illocutionary act is performed indirectly by way of performing another (Searle 1975). Some of these mismatches between IF and sentence type are illustrated in (257]) below. A very common type of indirect speech act is the rhetorical question, where the interrogative form is employed for some purpose other than to ask a question (257a). On the other hand, (257) and (257d) are not mismatches since the speech act in each corresponds to the sentence type. Since these mismatches require a change in intonation, it is difficult to find similar examples from written sources.
a. Why don't you just be quiet?
b. Don't tell me you lost it!
c. Who cares?
d. I don't suppose you'd like to buy this from me? [question in declarative form, with modified intonation]

Currently, RRG does not have a compatible framework for handling skewing between the form of the utterance's illocutionary act and the intention of its illocutionary act, as illustrated by the English examples in (257).

## Declarative

The assertion speech act makes a statement, and the default form of the sentence is declarative and is unmarked as such. An affirmative and a negative statement are given in (258); both are declarative IF.
(258) Assertion expressed with a declarative sentence:

c. Ojeai $\beta$ ik oaseasemamo omanõngatuaßo koite o-je-ai $\beta$ ik $\quad$ o-ase-asem-amo o-manõ-katu-a $\beta$ o koite 3-RFLX-lower.the.head $3_{\text {corf }}$-yell-yell-GER $3_{\text {corf }}$-die-good-GER finally
'He lowered his head, yelled repeatedly and finally really died.' (Araújo, 92)
$\left\langle_{\text {IF }}\right.$ DEC do ${ }^{\prime}$ (3 [lower.the.head ${ }^{\prime}$ (3)]) \& SEML do ${ }^{\prime}$ (3 [yell' (3)]) \& BECOME dead $^{\prime}$ (3) $\rangle$

Rhetorical questions are given in (259). In both cases, the focal clitic $=t e$ seems to signalize the mismatch between sentence type and speech act, i.e., despite being assertions, (259a) and (259b) both have $\langle$ IF $I N T\rangle$ in their logical structures, because in RRG, the
logical structure has to match the syntactic structure.

An assertion can also be expressed by a different sentence type, as in (259):
(259) Assertion expressed as an interrogative sentence. Example (259a) is repeated from (256a).
a. Asotepe ise?
a-so-te=pe ise
1SG-go-FOC=Q I
'Did I by the way go? (I didn't go!)' (AA, 36)
$\left\langle{ }_{\text {if }}\right.$ INT $\left\langle\right.$ tns NFUT do ${ }^{\prime}$ (1SG, [move.away.from.ref.point $\left.\left.\left.\left.{ }^{\prime}(1 S G)\right]\right)\right\rangle\right\rangle$
b. Nase retama ruãtepe iko $i \beta i$ ase rekoa $\beta a$ ?
na-ase r-etama- $\varnothing$ ruã-te=pe iko i $\beta$ ìi- $\varnothing$ ase $r$-eko-a $\beta-\mathrm{a}$ NEG-our $\mathrm{R}_{1}$-country-REF NEG-FOC=Q DEM land-REF our $\mathrm{R}_{1}$-live-NMLZ-REF
'Isn't this land where we live, by the way, our country?' (Araújo, 23)
c. Nereroje $\beta$ irißepotáripe nerekop ${ }^{\mathrm{w}}$ era?
na-ere-ro-je $\beta$ iri- $\beta$ e-potár-i=pe ne=r-eko-pwer-a
NEG-2SG-SCAU-return-also-want-NEG=Q 2 SG=R $1_{1}$-life-PST-REF
'Don't you also wish to return to your past actions?' (DC, II, 6)

## Interrogative

All interrogative sentences, yes-no questions, information questions (question words), and alternative questions in TUP require the clitic $=p e^{\boxed{l}}$. The interrogative clitic $=p e$ has narrow focus; it can attach to any constituent. The examples in (260) show interrogative sentences with WH-words.
(260) WH-word
a. Aßape ajpo- $\beta$ aße ojmomaran?
aßa=pe ajpo- $\beta$ aPe o-i-momaran
person=Q DEM-NMLZ 3-R2-obey
'Who obeys that one?' (Araújo, 67)
b. Mamõpe Tupã rekow?
marmõ=pe Tupã r-eko-w
where $=\mathrm{Q}$ God $\mathrm{R}_{1}$-be-nFOC

[^87]'Where is God?' (Araújo, 26)
$\left\langle{ }_{\text {IF }} I N T\left\langle{ }_{\text {tns }} N F U T\right.\right.$ be-at ${ }^{\prime}$ (Tupã,marãpe), $\left.\rangle\right\rangle$
c. Marãpe ase mojangi?
marã=pe ase mojaŋ-i
how=Q PRON make-NFOC
'How did he make us? (lit. how was his making of us?)' (Araújo, 25)
d. Marãpe nerera?
marã=pe ne=r-er-a what=Q $2 \mathrm{SG}=\mathrm{R}_{1}$-name-REF
'What is your name?' (Léry, Histoire, 341)
$\left\langle\mathrm{IF}\right.$ INT $\left\langle\right.$ tns NFUT have ${ }^{\prime}(2 \mathrm{SG}[$ ne], era $\left.)\rangle,\right\rangle$

The following examples are cases of narrow focus in which different constituents are questioned.
(261) PSA questioned

Serußape oso?
$\mathrm{f}=\mathrm{r}-\mathrm{r} \beta$ $\beta-\mathrm{a}=$ pe $\quad$ o-so
$1 \mathrm{SG}=\mathrm{R}_{1}$-father-REF= $\mathbf{Q} 3$-go
'Did my father go?' (AA, 36)
$\left\langle{ }_{\text {IF }}\right.$ INT $\left\langle{ }_{\text {TNS }}\right.$ NFUT do ${ }^{\prime}\left(3\left[\int \operatorname{eru} \beta\right]\right.$, [move.away.from.ref.point $\left.\left.\left.\left.{ }^{\prime}\left(3\left[\int \operatorname{eru} \beta\right]\right)\right]\right)\right\rangle\right\rangle$
(262) Predicate questioned

Asope isene?
a-so=pe ise=ne
1SG-go=Q I=FUT
'Will I go?' (FA, 166)
$\left\langle_{\text {IF }}\right.$ INT $\left\langle\right.$ TNS FUT do ${ }^{\prime}$ (1SG[ise], [move.away.from.ref.point ${ }^{\prime}(1 \mathrm{SG}[$ ise] $]$ ]) $\left.\rangle\right\rangle$
(263) Possessor questioned
$\mathrm{A} \beta \mathrm{a}$ ra?irape ne?
[aßa r-aPir-a]=pe ne
person $\mathrm{R}_{1}$-son-REF= $\mathbf{Q}$ you
'Whose son are you?' (VLB, I, 87)

Tupinambá WH-words are given in Table (6.4). Some are not attested in the texts, but appear in Anonymous (1952a).

| WH-word | Translation | Attestation example |
| :---: | :---: | :---: |
| aßápe | who | Teatro, 46 |
| erimaRe(pe) | when | Araújo, 30v |
| ke | what size | VLB, II, 91 |
| mamõ | where | Araújo, 52v |
| manõj | whence | VLB, I, 106 |
| marã(pe) | why, how | FA, 98 |
| marãba?e | what kind of | Léry, Histoire, 363 |
| marãete?i | how | Araújo, 156v |
| marã(na)mo(pe) | why | VLE, II, 82 |
| marangatueté | how | VLB, I, 77 |
| marangoti(pe) | in what direction | Araújo, 47 |
| mbaPe(pe) | what, which | Araújo, 43v |
| mbaPereme(pe) | in what circumstance | Araújo, 90v |
| mboßi | how many | Araújo, 107 |
| mojrã(pe) | when (in the future) | Araújo, 46 |
| monomo | how many | VLB, II, 91 |
| nãßo | how many | VLB, II, 91 |
| nãmo / nõmo | what size | VLB, II, 91 |
| umã | where | Teatro, 130 |
| umãßa?e | which one | DC, I, 212 |
| umãme | where | FA, 127 |

Table 6.4: Tupinambá WH-words

## Command/imperative IF

Imperative sentences can be positive (command) or negative (prohibition). In each case, the sentence is marked as imperative by imperative person markers - given in Table $6.5]$ on the verb.

| Person | Index |
| :---: | :---: |
| 2 SG | e- |
| 2PL | pe- |

Table 6.5: Imperative argument indexes

An positive imperative clause is illustrated in (264), while (26.5d) illustrates a negative imperative, with the obligatory negative imperative marker umé:
Pejori, $\quad$ peraso $\quad$ muru
pe-jori $\quad$ pe-era-so $\quad$ muru- $\varnothing$
2PL.IMP-come 2 2PL.IMP-SCAU-go darned-REF
'Come, bring the darned ones.' (AT, 92)
$\left\langle\right.$ IF $^{\text {IF }}$ IMP do ${ }^{\prime}$ (2PL, $\left[\right.$ move.towards.ref.point' $\left.\left.{ }^{\prime}(2 \mathrm{PL})\right]\right) \&\left[\mathbf{d o}^{\prime}(\mathrm{x}, \varnothing)\right]$ CAUSE $\left[\mathbf{d o}^{\prime}\right.$
$\left(\right.$ muru, $\left[\right.$ move.away.from.ref.point ${ }^{\prime}($ muru $\left.\left.\left.\left.)\right]\right)\right]\right\rangle$

The imperative IF has its own negator, umẽ. Examples are given in (265):
a. Eporapiti
umẽ!
e-poro-apiti
umẽ
2SG.IMP-ANTIP-slaughter NEG
'Do not slaughter people.' (Araújo, 69v)
b. Serenõj umẽ jepe!
fe=r-enõj umẽ jepe
$1 \mathrm{SG}=\mathrm{R}_{1}$-call NEG PRON
'Do not invoke my name!' (Teatro, 32)
c. Ejemoririj umẽ
e-je-moririj umẽ
2SG.IMP-MID-worry NEG.IMP
‘Do not worry (yourself)!' (AT, 32)
$\left\langle{ }_{\text {IF }} I M P\left\langle\operatorname{NEG}\left[\mathbf{d o}^{\prime}(\varnothing, \varnothing)\right]{\left.\left.\operatorname{CAUSE}\left[\mathbf{b e}^{\prime}\left(2 \mathrm{SG},\left[\text { worried }^{\prime}\right]\right)\right]\right\rangle\right\rangle}\right.\right.$


Figure 6.9: Example of an imperative sentence

Optative

The optative IF expresses an unfulfilled wish/desire. It is realized by mo or temõ following the predicate and the sentence-final particle $m \tilde{a}$ (267). If the event or wish is in the past and thus cannot be fulfilled anymore, it is realized by me? $\tilde{i}$ or me?imo. With a
non-verbal predicate, only the particle $m \tilde{a}^{6 /}$ is used ( 2666 ).
a. Aso temõ ißakipe mã!
a-so temõ ißak- $\varnothing$-pe mã
1SG OPT sky-REF-LOC PRCL
'If I could go to heaven!' (AA, 24)
$\left\langle_{\text {IF }} O P T\left[\right.\right.$ do $^{\prime}$ (1SG, [move.away.from.ref.point ${ }^{\prime}(1 \mathrm{SG}[\mathrm{a})] \& \operatorname{INGR}\left[\right.$ be-at $\left.\left.\left.{ }^{\prime}(\mathrm{i} \beta \mathrm{ak}, 1 \mathrm{SG}[\mathrm{a}])\right]\right\rangle\right\rangle$
b. Ajukamo mã
a-i-juka-mo mã
1-SG-R2-kill-OPT PRCL
'I wish I could kill him.' (AA, 18)
$\left\langle_{\text {IF }} O P T\left[\right.\right.$ do $^{\prime}\left(1 \mathrm{SG},\left[\right.\right.$ move.away.from.ref.point $\left.\left.\left.{ }^{\prime}(1 \mathrm{SG})\right]\right)\right]$ \& INGR [be-at' ${ }^{\prime} \beta$ ak, 1 SG$\left.\left.\left.)\right]\right\rangle\right\rangle$
c. Akwej ko mã!
akwej ko mã
DEM here PRCL
'I wish/if only that one were here!' (DC, 93)

Note that while mã is a sentence-final particle, temõ, mo, and meथi(mo) always follow the predicate (second position).
a. Aso meحĩmo ißak-i-pe mã
a-so me?ĩmo i ${ }^{\text {ß }}$ ak-EPEN-pe mã
1-SG-go OPT sky-REF-LOC PRCL
'I wish I had gone to heaven.' (AA, 24)
b. Ajuka merĩ mã
a- $\varnothing$-juka meح̃i mã
1SG-R2-kill OPT PRCL
'I wish I had killed him.' (AA, 18)

## Hortative

Descriptions of TG languages mention the existence of a permissive or exhortative mood ${ }^{[\boxed{V} .}$. The hortative category expresses hues of a wish, request, desire, deliberation, in-

[^88]tention, or obligation through the morpheme $t a$, perhaps cognate with the verb potar 'want', since a link between such markers and lexical sources meaning 'desire, want' are attested (see Bybee et al. 11994).

```
a. Tour e Jurupari!
t-o-ur e Jurupari
HORT-3-come PRCL Jurupari
`May Jurupari come!' (D'Abbeville, Histoire, 357)
< if OPT< тns NFUT< моd HORT [do' (Jurupari,[move.away.from.ref.point'
(Jurupari)])] & INGR [be-at' (Jurupari,?)]>>
```

b. Tajeapipik e moinisemawera ka!
$t$ - $\int \mathrm{e}=\varnothing$-apipik e mo-inisem-wer-a ka
HORT-1SG=R1-mistreat PRCL CAUS-full-PST-REF PRCL
'May it harm me indeed, my drunkenness!' (DC, II, 103)

Similarly to the imperative, the hortative is negated with ume $\sim$ ime.
(269) ToimoPayimẽ aßa emonã oikoßaPe
t-o-i-moPaj-imẽ aßa- $\varnothing$ emonã o-iko- $\beta a a^{2}$
HORT-3-R2-fake-NEG person-REF thus 3-be-NMLZREL
'May the Indians who acted this way not pretend.' (CC, 1, 17)

### 6.5.1.2 Evidentials

Evidentiality is the grammaticalized marking of information source Aikhenvald (2004). In other words, it is a way of indicating the speaker's assessment of the evidence for his or her statement.

Tupinambá has a relatively simple system of evidentials compared to other languages of the TG family (see Cabral 2007, 289), marking a three-way distinction between information directly attested by the speaker, information obtained by third-party attestation, and information heard, but not from direct testimony (see Willett|1988).

Information directly attested by the speaker is conveyed by -rako, as (270)) illustrates:
cohortative). However, as I did not find any clear example of its usage in permissive meaning (see van der Auwera et al (2013), I regard "hortative" as a more appropriate label.
(270)
a. $\mathrm{Ak}^{\mathrm{w}}$ ejme rako pira asekijmarayatu ak $^{\mathrm{w}}$ ejme rako pira- $\varnothing$ a-s-ekij-marygatu formerly $\mathbf{E V}_{\mathbf{F H}}$ fish-REF $1 \mathrm{SG}-\mathrm{R}_{2}$-fish-favorably
'In the old days, as a matter of fact, I used to fish favourably.' (AP, 152)
$\left\langle{ }_{\mathrm{IF}} D E C\left\langle\mathrm{Ev} A T T\right.\right.$ do $\left.\left.^{\prime}\left(1 \mathrm{SG},\left[\mathbf{f i s h}^{\prime}(1 \mathrm{SG})\right]\right)\right\rangle\right\rangle$
b. Emonã rako sekow neswi
emonã rako s-eko-w ne $=\varnothing$-swi
thus $\quad \mathbf{E V}_{\mathbf{F H}} \mathrm{R}_{2}$-act-NFOC $2 \mathrm{SG}-\mathrm{R}_{21}$-POSP
'(Being) far from you, this is how he acted.' (Araújo, 74 1686)
c. ARe rako iangajpa
a?e rako i-angajpa
They $\mathbf{E V}_{\mathbf{F H}} \mathrm{R}_{1}$-evil
'They, I know it, are evil.' (AT, 16)

If the information being conveyed is attested not by the speaker, but by a third party, then rape is employed:
a. Oso raPe
o-so raPe
3-go $\mathbf{E V}_{\mathbf{N F H}}$
'He went, it is said.' (VLB, I, 104)
b. Maria kujãjatu opuruParamo, raPe, tekopofi

Maria kujã-katu- $\varnothing$ o-puruPa-ramo raPe t-eko-pofi
Maria woman-good-REF CORF-pregnant-TRSL $\mathbf{E V}_{\text {NFH }}$ R $_{1}$-habit-bad- $\varnothing$
ojmopuru
o-i-mo-puru
3-R2-CAUS-damn
'Maria, good woman, becoming pregnant, it is said, attempted against the sinns.'
(AP, 184)

Another morpheme indicating that the information has been indirectly obtained by having heard it from a third party is $-j e$. As shown by (273a), it is possible to combine two evidential morphemes. ${ }^{9}$
(272) Guarayo, Tupí-Guaraní, Bolívia

[^89]Oso je rae
3-go EV EV
'It is said that he went." (Hoeller 1932, 216)

Another piece of evidence for two evidentials occurring adjacently is the double source for evidential morphemes in other TG languages (see Cabrall 2007)
a. Emonã je raRe
emonã je raPe
thus $\mathbf{E V}_{\mathrm{NFH}} \mathbf{E V}_{\mathbf{N F H}}$
'Thus it happened, it is said.' (VLB, I, 104)
b. Emonã je aßa rekow raPe
emonã je aßa-ø r-eko-w ra?e
thus $\quad \mathbf{E V}_{\mathbf{N F H}}$ man-REF $\mathrm{R}_{1}$-act-NFOC formelry
'It is said that the man formerly acted this way.' (DC, II, 100)

### 6.5.1.3 Status

In Tupinambá, the realis status ${ }^{\text {º }}$ is unmarked, while irrealis status is expressed through an oblique suffix, originally a postposition meaning 'on the occasion of, because', which later grammaticalized as a translative case marker before losing its status as such (see Cabral and Rodrigues 2005). It attaches to the nominalized constituent and does not require the relational marker. As status is a clausal operator, it is unusual for it to be indicated on an RP rather than on a part of nucleus, as in TUP.

The irrealis (IRR) is marked on the RP by -reme $\sim-m e^{\square l}$ 'because of, on the occasion of, if, when', which was originally an oblique suffix or postposition that later grammaticalized into an irrealis marker expressing simultaneity (274a), condition (274b), causality (274c), or temporality (274d).

$$
\begin{array}{ll}
\text { a. } & \text { AjeRen }  \tag{274}\\
\text { a-jesoreme } \\
\text { a-je } & \text { ne }=R_{1} \text {-so-reme } \\
\text { 1SG-speak } 2 S G=\varnothing \text {-go-IRR }
\end{array}
$$

[^90]'I speak while/when you go (lit. I speak on the occasion of your going).' (AA (1595), 29v)
$\left\langle_{\text {IF }}\right.$ DEC $\left\langle_{\text {STA }} \operatorname{IRR}\left\langle_{\text {TNS }} P R S\right.\right.$ do $^{\prime}\left(1 \mathrm{SG}\left[\right.\right.$ speak $\left.\left.^{\prime}(1 \mathrm{SG})\right]\right) \wedge$ do $^{\prime}\left(2 \mathrm{SG},\left[\right.\right.$ move.away.from.ref.point ${ }^{\prime}$ (2SG) ]) $\rangle\rangle\rangle$
b. Tupã ipotare $2 \tilde{\text { inme, najpotari }}$

Tupã i-potar-erĩ-me n-a-i-potar-i
God $\mathrm{R}_{1}$-want-not-IRR NEG-1 $\mathrm{SG}=\mathrm{R}_{1}$-want-NEG
'I do not want it, if/when God does not want it (lit. because of God's not wanting
it I do not want it).' (D'Abbeville, 351v)
c. Pedro oso omonóreme

Pedro o-so o-mo-so-reme
Pedro 3-go 3 corf-CAUS-go-IRR
'Pedro ${ }_{i}$ goes because/when/if he is sent.' (FA, 84)
d. Ojerokipe ase Jesus Rereme?
o-je-roki=pe ase Jesus Re-reme
3-RFLX-bow=Q we Jesus say-IRR
‘Do we bow when we say Jesus?' (Araújo, 23)
$\left\langle_{\text {IF }}\right.$ int $\left\langle_{\text {sta }}\right.$ irr $\left\langle_{\text {tns }} P R S\right.$ do $^{\prime}$ (ase [duck (asé)]) $\wedge$ do $^{\prime}$ (2SG,[move.away.from.ref.point ${ }^{\prime}$ (2SG) ]) $)\rangle\rangle$

It is common to combine the irrealis marker with the optative/hypothetical marker.
a. Pedro jawar-a $\quad \varnothing$-juká-reme

Pedro jawar-a $\quad \varnothing$-juka-reme
Pedro jaguar-REF R2-kill-IRR
'If/when Pedro killed the jaguar.' (FA, 155)
b. Semonorememo asómo
$\int \mathrm{e}=\varnothing$-mo-so-reme-mo a-so-mo 1SG=R1-CAUS-go-IRR-OPT 1SG-go-OPT
'If I were sent, I would go. (if they sent me, I'd go)' (AA, 25)

The morpheme nipo is an alethic modality marker. It indicates the speaker's estimation of the probability of the proposition expressed by his utterance. In this case the speaker considers it possible:
(276)
a. Oso nipo?
o-so nipo
3 -go DUB
'Is he perhaps going? / would he go?' (VLB, I, 82)
b. Ojepe-iom $\beta \mathrm{e}$, nipo, iangajpa $\beta$ amõme e ojepe-iom $\beta$ e nipo i-angajpa $\beta$ amõme e one-the.other DUB $\mathrm{R}_{1}$-evil some.times PRCL 'Maybe, one or the other was evil sometimes.' (AT, 38)

Another category is the frustrative, which encodes epistemic modality indicating the 'nonrealization of some expected outcome implied by the proposition expressed in the marked clause ' (Overall 2017) - because the category frustrative always implies two propositions, even though the second proposition often remains implicit. The frustrative is a common category of the verb in Amazonian languages, especially TG (see Aikhenvald 2012, 185 and Dietrich 2006).

In Tupinambá, this unrealized expectation is encoded by the particle $\beta i \bar{a}^{[\boxed{T}}$.
(277)
a. Aso $\beta$ iã
a-so $\beta$ iã
1SG-go FRUST
'I went (in vain).' (AA, 21v)
b. Asopotar ißakipe, eRi, $\beta$ iã
a-so-potar i $\beta$ ak-i-pe e-Zi $\beta$ iã
1SG-go-want sky-LOC 3-say FRUST
'I want to go to heaven, they say, in vain.' (Araújo, 112)

Two other particles, $j \tilde{o} t e^{[\pi]}, j \tilde{e}$, and ( $\left.२\right) \tilde{i}$, which is also used for the diminutive (see Section [.3.2), indicate other nuances of the frustrative modality: concessive or lusive, indicating that the goal of the action was not accomplished.
a. Aso jõte
a-so jõte
1SG-go FRUST
'I went (without intention).' (FA, 144)

[^91]b. AimeReŋ $\tilde{i}$
a-i-me?eŋ- $\tilde{\mathbf{i}}$
$1 \mathrm{SG}=\mathrm{R}_{1}$-give-FRUST
'I gave (it) (without intention).' (VLB, I, 90)

The combination of (P) $\tilde{i}$ and $j \tilde{e}$ is attested, as in (279).
(279) Aimojanijijẽ
a-i-mojay- $\tilde{\mathbf{i}}-\mathbf{j} \tilde{\mathbf{e}}$
$1 \mathrm{SG}=\mathrm{R}_{1}$-do-FRUST-FRUST
'I (simply) did it (for no reason).' (Anch., Arte, 54)

### 6.5.1.4 External negation

The external (clausal) negator in TUP is a discontinuous morpheme ( $n \ldots i$ ), a feature common to other Tupían languages (Dietrich 2017b). The obligatory discontinuous negation is used in TUP for declarative sentences - the imperative has its own negator (see example (265c). Examples of clausal negation are given in (280):
a. Nasopotari
mamõ
n-a-so-potar-i
mamõ
NEG-1SG-go-want-NEG anywhere
'I do not want to go anywhere.' (Poemas, 100)
b. Noroerekoj
n-oro-eroiko-i
NEG-1PL.EXCL-SCAU-be-NEG PRCL 1PL.EXCL= $\mathrm{R}_{1}$-grandfather-REF
aße
$\varnothing$-aße
$\mathrm{R}_{1}$-since
'We do not have them, actually, since our grandfathers.' (Léry, 362)
c. Nereje?ẽmotaripe nerapisara supe?
$\mathbf{n}$-ere-je?ey-potar-i=pe ne=r-apisar-a supe
NEG-2-SG-speak-want-NEG=Q 2 SG=R ${ }_{1}$-colleague-REF POSP
'Didn't you want to talk to your colleague?' (Araújo, 102)
d. Nereimojîrõ

Tupã nejoupe
n-ere-i-mo-jirõ-i Tupã ne $=\varnothing$-joupe
NEG-2-R $1_{1}$-CAUS-forgive-NEG God $2 \mathrm{SG}=\mathrm{R}_{1}-\mathrm{RECP}_{\text {POSP }}$
'You did not make God forgive you.' (AC, 97)

Examples of $n a \ldots i$ negating nominal predicates are given in (2811):
a. $\operatorname{Nit} \beta \mathrm{i}$
fea $\beta$ aetep ${ }^{\text {w }}$ era
n-i-ti $\beta$-i
$\int e=\varnothing$-a $\beta$ aete-p ${ }^{w}$ er-a

NEG-R2-existence-NEG $1 \mathrm{SG}=\mathrm{R}_{1}$-courage-PST-REF
'I do not have courage. (there isn't my old courage)' (Teatro, 50)
b. Naferãj
na- $\int e=r-a ̃ j-i$
NEG-1SG=R1-tooth-NEG
'I do not have teeth.' (VLB, I, 97)
c. Naferori $\beta$ i
na- $\int \mathrm{e}=\mathrm{r}$-orí $\beta$-i
NEG-1SG=R ${ }_{1}$-happy-NEG
'I am not happy.' (Anch., Arte, 34v)

In the future tense, negation is also discontinuous, but with the addition of swe/so ( $n a \ldots i$ swe $/$ so $)^{[\pi]}$. Examples of future negation are given in (282a).
a. Nasawsußejẽjswe
Ajãyane
n-a-s-awsu $\beta$ - $\beta$ ejẽ-i-swe
Ajãya=ne

NEG-1SG=R1-love-again-NEG-NEG Devil=FUT
'I shall not love the Devil again.' (Araújo, 86)
b. Noromome?uisóne
n-oro-mome?u-i-so=ne
NEG-1PL.EXCL-denounce-NEG-NEG=FUT
'I will not denounce you.' (Teatro, 34)

There is a special form for negating the future, as in other Tupían languages (see Dietrich 2017b). This form is similar to the standard core negation (see Section 6.5.2.3) in that it uses a discontinuous morpheme $n(a)-\ldots-i$ with the addition of the suffix swe - of unknown etymology - which can optionally be followed by the future clitic marker $=n e$ (swe=ne):
(283) a. NimaPenwariswéne
$\mathbf{n - i}$-maPenwar-i $\quad$ swe=ne
NEG-R $\mathrm{R}_{1}$-remember-NEG PRCL=FUT
'They will not remember.' (FA, 40)

[^92]$\begin{array}{ll}\text { b. } & \text { Naferekopo } \int \mathrm{ij} \\ \text { na- } \int \mathrm{e}=\mathrm{r}-\mathrm{eko} \text {-pofi-i } & \text { swe } \\ \text { NEG-1SG=R } 1 \text {-life-evil-NEG } & \text { swe }\end{array}$
NEG-1SG=R1-life-evil-NEG NEG
'I will not have sins.' (AC, 106)
c. Najukaj swéne
na-a-i-juka-i swe=ne
NEG $\quad 1 \mathrm{SG}=\mathrm{R}_{1}$-kill-NEG NEG=FUT
'I do not refrain from killing him (I will not not kill him).' (FA, 34)
d. Ase Raja jõ nopaßi swéne, awjeramaje ase Pay-a jõ na-opaß-i swe=ne awjeramaje we soul-REF ADV NEG-terminate-NEG NEG=FUT eternally omanõßaPerame?ima sekóreme o-manõ- $\beta$ aPe-ram-e?im-a s-eko-reme 3-die-NMLZ-FUT-PRIV-REF R 2 -be-POSP
'Only our soul will not end, because it is what never dies.' (Bettendorff, Compêndio, 58)

Double negation is mentioned by Anchieta (1595) and Figueira (1687) but rarely seen in the texts. Double negation - privative (see Section 8.2.0.2) + negation - has affirmative meaning as in $(284)^{15}$ :
a. Najukae?imi
na-a-i-juka-e?im-i
NEG-1SG-R2-kill-PRIV-NEG
'I kill him.' (FA, 34)
b. Naipotare?imi swéne
na-a-i-potar-exim-i swe=ne
NEG-1SG-R2-want-PRIV-NEG NEG=FUT
'I will not not kill him.' (Anchieta, 34v)

There is also an instance of the privative with the non-predicative negator ruã as in (285):

```
(285) Nasekasaßa
na-s-eka-sa\beta-a
k
k}\mp@subsup{}{}{\textrm{w}}\beta\mp@code{\beta-e?im-a ruã
```

NEG-R $2_{2}$-search-NMLZ-REF know-PRIV-GER NEG

[^93]'Not ignoring (not knowing) what they were looking for (lit. knowing the thing searched for).' (Araújo, 54)

### 6.5.1.5 Tense

Tense is a category which expresses a temporal relationship between the time of the described event and some reference time (S) which, in the unmarked case, is the moment of speech. In the simplest case, tense indicates the temporal relationship between the time of the event (E) and the time of the utterance (S) describing the event (Hornstein 1993; Comrie et al. 1985). In TUP, as in most TG languages, the time of the utterance mostly does not coincide with the time of the event, so unmarked predicates express the past. Special constructions are used for the present tense.

Tupinambá only has absolute tenses, and a future and non-future distinction. We can formally distinguish this binary opposition in terms of ' $E$ (moment of event) relative to $S$ (moment of speech)' (see Comrie et al. 1985, chap. 6) ${ }^{[16}$. Tupinambá is a non-future language (' $E$ not-after $S$ '), meaning that it has default [- future] (see Müller 2013, 38). Thus, the verb form not marked for tense can be either present or past (see Anchieta 1595, 21 v ), with the past being far more common.

Even though TUP is a non-future language, there is a particle, $j \tilde{a}^{[\boxed{7}}$, that indicates present tense, excluding the past-tense reading.
(286) Asójã
a-so-jã
1SG-go-NPST
'I go.' (AA, 21v)

Future

The only marked tense in Tupinambá is the future, defined as E after S. It is always

[^94]marked by the clitic $=n e^{[8]}$, which tends to be placed at the end of the clause ${ }^{\text {m }}$ unless there is a sentence-final particle, as can be seen from the examples in (287).
a. Asóne
a-so=ne
$1 \mathrm{SG}-\mathrm{go}=\mathrm{FUT}$
'I will go.' (AA, 22)
$\left\langle{ }_{\text {IF }}\right.$ DEC $\left\langle_{\text {sTA }}\right.$ IR $\left\langle{ }_{\text {TNS }}\right.$ FUT do ${ }^{\prime}\left(1 \mathrm{SG}\left[\right.\right.$ move.away.from.ref.point $\left.\left.\left.\left.\left.{ }^{\prime}(1 \mathrm{SG})\right]\right)\right\rangle\right\rangle\right\rangle$
b. Aso koríne
a-so kori=ne
1 SG-go today $_{\text {fut }}=$ FUT
'I will go today.' (AA, 22)
c. Aso kori okipe neruriréne
a-so kori oki=pe ne=r-ur-rire=ne
1SG-go today fut house-LOC $2 \mathrm{SG}=\mathrm{R}_{1}$-come-after=FUT
'I will go home today after you come.' (AA, 22)
d. Serejtik koríne mã!
fe=r-ejtik kori=ne mã
$1 \mathrm{SG}=\mathrm{R}_{1}$-defeat today=FUT PRCL
'Oh, I will be defeated today (lit. they will defeat me today).' (AT, 28)
e. APepe miawsußa nosap ${ }^{\text {jariswe }}$ ojara
a?e=pe miawsu $\beta$-a n-o-s-ap ${ }^{\text {j}}$ ar-i-swe $\quad$ o-jara- $\varnothing$
?=Q slave-REF NEG-3-R1-obey-NEG-NEG.FUT COREF-lord-REF
je Peŋáne?
je?ey-a=ne
word-REF=FUT
‘Won't the slave obey the words of his own master?' (Araújo, 69)

Figure 6.10 shows the representation of 287:

It also often appears attached to the predicate (288).
a. Sepinaporangete
topinaitikine
ené $\beta o$
$\int e=\varnothing$-pina-poray-ete
t-o-pina-itiki=ne
ene- $\beta$ o
$1 \mathrm{SG}=\mathrm{R}_{1}$-fishhook-beauty-INTS HORT-3-fishhook-throw=FUT 2 SG-DAT
'May my very beautiful fish hook fish for you.' (Poemas, 152)

[^95]

Figure 6.10: The tense operator

```
b. Torojopitißõne oreporomojayawera
t-oro-jo-piti }\beta\tilde{o}=n=\quad\mathrm{ ore-poro-mojay-a }\beta\mathrm{ -wer-a
HORT-1PL.EXCL-RECP-help=FUT 1PL.EXCL-ANTIP-make-NMLZ-PST-REF
monak}\mp@subsup{}{}{\textrm{w}}\mathrm{ apa
mo-kak}\mp@subsup{}{}{\textrm{w}
CAUS-grow-GER
```

'May we help each other raise our offspring.' (Araújo, 95)

An interesting example shows the tense marker three times in the same (nominal) clause (see also examples (514)).

'I shall certainly forgive, alas, all he evil things you have done.' (CC, 1)

The use of rakaPe 'once, formerly' signalizes the past tense and the imperfective aspect. It is similar in meaning to the so-called imperfect (conflated tense and aspect) of Portuguese or Spanish (see Comrie et al. 1985, 6-7). RakaPe is an adverb, not a tense or aspect marker, and is similar to English infinitives preceded by used to in that it expresses something that cannot be expressed otherwise in TUP. Its use in the texts clearly translates into the Portuguese imperfect tense.
(290) a. Ise rakaPe

## I formerly

'It was I / It used to be me.' (VLB, I, 121)
b. Orojoiu rakaPe
oro-jo-Ru raka?e
1PL.EXCL-RECP-eat formerly
'We used to eat each other / we were once eating each other.' (D'Abbeville, Histoire, 341v)

### 6.5.2 Core-level operators

Core operators modify the relation between a core argument, normally the actor, and the nucleus. This is especially true of core directionals and modality.

Modality operators in RRG refer to the deontic sense of modal verbs. This category includes such things as strong obligation (must or have to), ability (can or be able to), permission (may) and weak obligation (ought or should) (Van Valin Jr and LaPolla 1997, 41). Modality thus concerns the relationship between the referent of the subject RP and the action.

### 6.5.2.1 Modality

Ability, permission, and obligation are expressed in different ways (see Bybee et al. 1994, 177). Ability and permission are expressed through a lexical verb, (e) Pikatu 'be able, can, be allowed, ${ }^{20}$, which requires a complement.

$$
\begin{align*}
& \text { a. Terikatu nek }{ }^{\text {w }} \text { apa } \text { Seru } \beta a \quad \text { Tupinam } \beta \text { a! }  \tag{291}\\
& \text { t-e2ikatu } \quad n e=k^{w} a \beta-a \quad \int e=r-u \beta-a \quad \text { Tupinam } \beta a! \\
& \text { HORT-be.able } 2 \mathrm{SG}=\mathrm{R}_{1} \text {-know } 1 \mathrm{SG}=\mathrm{R}_{1} \text {-father-REF Tupinambá } \\
& \text { 'May my Tupinambá father (get to) know you!' (Poemas, 114) } \\
& \langle\text { IF DEC }\langle\text { mod PER know' }(u ß a, 2 S G)\rangle\rangle
\end{align*}
$$

b. APekatu sep ${ }^{j}$ aka
a-Rekatu s-epjak-a
1SG-be.able $\mathrm{R}_{2}$-see-GER

[^96]'I can / am able to see him.' (AA, 56)
$\left\langle\mathrm{IF} \operatorname{DEC}\left\langle\mathrm{MOD} \operatorname{PER} / \mathrm{AB} \boldsymbol{\operatorname { s e e }}^{\prime}(1 \mathrm{SG}, 3)\right\rangle\right\rangle$

Obligation is expressed through the particle mone ${ }^{\text {[2] }}$. Mone expresses both nuances of obligation, i.e., strong obligation, here translated as 'must', and weak obligation, which is translated as 'should' (see Bybee et al. 1994, 177).
(292)
a. Kori mone aso
kori mone a-so
today MOD 1 SG-go
'I should go today.' (AA, 25)
$\left\langle\right.$ IF DEC $\left\langle\right.$ MOD OBL do ${ }^{\prime} 1 \mathrm{GO}\left[\left(\right.\right.$ move.away.from.ref.point $\left.\left.\left.{ }^{\prime}(1 \mathrm{GO})\right]\right\rangle\right\rangle$
b. Ahẽ raje temonemo!
ahẽ raje te-mone-mo
that.one first FOC-MOD-IRR
'He should be first (not someone else)!' (VLB, II, 64)

### 6.5.2.2 Hortative modality

Hortative modality expresses a wish or an allowance and it is formed using the prefix $t a$, which combines with active (293) or stative (294) predicates. It also functions as an hortative marker, as in (293b).
(293) a. Tomanõ
t-o-manõ
HORT-3-die
'May he die.' (Araújo, 56v)
b. Tajajuka Jemena
t-ja- $\varnothing$-juka $\quad \int e=\varnothing$-men-a
HORT-1PL.INCL-R $1_{1}$-kill $1 \mathrm{SG}=\mathrm{R}_{1}$-husband-REF
'Let us/may we kill my husband.' (Araújo, 279)
(294)
a. Tafejuka Pedro
ta- $\int \mathrm{e}=\varnothing$-juka Pedro
HORT-1SG=R ${ }_{1}$-kill Pedro
'May Pedro kill me.' (FA, 152)

[^97]```
b. TafemaRenwar ta- \(\int \mathrm{e}=\varnothing\)-maPenwar HORT-1SG=R \(1_{1}\)-remember(ance)
‘May I remember." (AF, 44)
```

The hortative mood also occurs in the future and is more frequently attested with the first person singular (295) and the first person plural inclusive (see Anchieta [1595, 23). In contrast, it is rarely attested with second or third (296) persons. Often, the combination of the hortative marker with the future marker expresses epistemic future (see Giannakidou and Mari 2018).
a. Eru pira taPune
e-ero-ur
pira- $\varnothing \quad$ t-a-Ru=ne
2.IMP.SG-SCAU-bring fish-REF HORT-1SG-ingest-FUT
'Bring fish, that I may eat it / I shall eat it.' (Anch., Arte, 23)
$\begin{array}{ll}\text { b. Tasóne, } & \text { wi! TakaPune! } \\ \text { t-a-so=ne } & \text { wi! t-a-ka(wi)-Ru=ne }\end{array}$
HORT-1SG-go=FUT INTJ HORT-1SG-beer-ingest=FUT
'I shall go, I shall drink beer!' (AT, 12)
(296)
a. Nemajanamo tojkóne!
ne $=\varnothing$-maja-namo t-oiko=ne
$2 \mathrm{SG}=\mathrm{R}_{1}$-spy-TRSL HORT-3-be=FUT
'He might be your spy/spy on you!' (AT, 34)
b. Tasepi nemonawera
ta-s-epi ne= $\varnothing$-mona-wer-a
HORT-R ${ }_{1}$-payment $2 \mathrm{SG}=\mathrm{R}_{1}$-theft-PST-REF
'May there be a price for your theft.' (AT, 48)
c. Kori e toromodone
kori e t-oro-mo-so=ne
today PRCL HORT-1PL.EXCL-CAUS-go-FUT
‘Today, I may turn you away.' (AT, 34)

### 6.5.2.3 Core negation

Core-level negation in TUP negates a core argument. The core negator morpheme is $n$-, which precedes the term being negated and the focal ruã which follows it. This type is
common to other TG languages (Dietrich 2017b, 22-23). Examples are given in [29]. The element in the scope of $n \ldots$ ruã is always focal.
(297)
$\begin{array}{ll}\text { a. } & \text { Naßare } \\ \text { naßare- } \quad \text { ruã } & \text { ise } \\ \text { nuã } & \text { ise } \\ \text { NEG-priest-REF } & \text { NEG I } \\ & \text { 'I am no priest.' } \\ \text { (AA, 46v) }\end{array}$
b. Naserußa ruãtepe ase rete ojmojay?
na-ase-r-u $\beta$-a ruã-te=pe ase r-ete o-i-mojay
NEG-our- $\mathrm{R}_{1}$-father-REF NEG-FOC=Q we $\mathrm{R}_{1}$-body 3 - $\mathrm{R}_{2}$-make
'Wasn't it our father who made our body?' (Araújo, 25)

'Not to my father I gave it.' (AA, 47v)
(298)

| a. | NerejeRẽmotaripe | nerapisara | supe? |
| :--- | :--- | :--- | :--- |
| n-ere-je?en-potar-i=pe | ne=r-apisar-a | supe |  |
| NEG-2-SG-speak-want-NEG=Q | $2 S G=R_{1}$-colleague-REF | POSP |  |
|  |  |  |  |
|  | 'Didn't you want to talk to your colleague?' (Araújo, 102) |  |  |


c. Naferori $\beta \mathrm{i}$
na- $\int \mathrm{e}=\mathrm{r}$-ori $\beta$ - i
NEG-1SG=R1-happy-NEG
'I am not happy.' (AA, 34v)

### 6.5.3 Nuclear-level operators

Nuclear-level operators modify, as the name suggests, only the nucleus. Elements in other layers are not affected by them.

### 6.5.3.1 Aspect

Aspect, in spite of not relating to tense, i.e., the relation between event and time of utterance, concerns the internal temporal structure of the event itself (see Comrie 1976). Aspect
is manifested in lexical semantics, since predicates have different Aktionsart, as well as in grammatical semantics through various grammatical constructions (see Crott 2012, 4). Another notion that is related to verbal aspect is that of causal or force dynamic structure (Crott) 2012, 4). They are related in the sense that both are relevant to event structure. Aspectual markers in TUP always follow the predicate. Otherwise, they are adverbs.

The completive 'aspect' is marked by the adverb $p a$ (from $p a \beta$ ), meaning 'all, total(ly), complete(ly)', and indicates that an action has been fully performed. As an adverb, it cannot be an operator because operators are closed class grammatical items.

In the examples in (299), it should be clear that the scope of the adverb is over the predicate only; the action is perceived as completed.
a. Kunumi mokongapa
kunumi- $\varnothing$ mokon-a-pa
boy-REF swallow-GER-completely
'Swallowing the boy completely.' (Poemas, 166)
b. TaPupa Jakarewasu pepira
t-a-Pu-pa Jakarewasu pepir-a
HORT-1SG-ingest-completely Jakarewasu feast-REF
'I shall eat up Jakarewasu's feast.' (AT, 64)
c. Ereroirõpape seko?
ere-eroirõ-pa=pe s-eko
2SG-hate-completely=$=$ R $R_{1}$-deed
'Do you completely hate his deeds?' (Araújo, 114v)

Predicates may be modified by the lexical root ai $\beta$ 'bad', which is in opposition to the meaning expressed by $p a$, as an incomplete action marker, indicating that the action is partial or incomplete, as in (300):
$\begin{array}{ll}\text { a. Asenu } \beta \text { ai } \beta & \text { nejeReŋa } \\ \text { a-s-enu } \beta \text {-ai } \beta & \text { ne }=\varnothing \text {-je?ena }\end{array}$
$1 \mathrm{SG}-\mathrm{R}_{2}$-listen-bad $2 \mathrm{SG}=\mathrm{R}_{1}$-speech-REF
'I hear your words (but not all).' (VLB, I, 119)
b. Erejukaípe menarePima imoposi janone kojpo ere-i-juka-ai $\beta=$ pe men-sar-eeim-a i-mo-pofi janone kojpo 2 SG-R2-kill-bad=Q husband-NMLZ AG -PRIV-REF $\mathrm{R}_{2}$-CAUS-evil before or
moposipota?
i-mo-posipota
$\mathrm{R}_{2}$-CAUS-evil-want.GER
'Did you hit (without killing) a maiden before doing her evil or wanting to cause her evil?' (Araújo, 103v)
c. Amanõai $\beta$ amiasi swi
a-manõ-ai $\beta \quad$ amì-asi $\quad \varnothing$-swi
1SG-die-INCMP abdomen-pain $\mathrm{R}_{1}$-from
'I almost die of hunger.' (VLB, II, 73)

For a particle signalizing the imperfective aspect and past tense, see (6.5.1.5).

Lexical roots that combine with Set II indexes may combine with indexes from Set I (possessor) indexes in order to express the habitual or frequentative aspect, indicating that the actor frequently performs the action (see Anchieta 1595, 51).
a. APita $\beta$
a-?ita $\beta$
1SG-swim
'I swim.' (AA, 51)
b. $\int e$ eita $\beta$
$\int \mathrm{e}=\varnothing$ - $\mathrm{it} \mathrm{ta} \beta$
$1 \mathrm{SG}=\mathrm{R}_{1}$-swim
'I often swim / I am a swimmer / I can swim.' (AA, 51)

Some nuances regarding the realization of the verbal process, e.g., repetition and customary activity (Sapir I921, IV:24), are expressed through reduplication (see Inkelas and Downing 2015; Downing and Inkelas 2015), which is a common feature of Tupían languages (Rose 2005; Dietrich 2014).Tupinambá has two different types of reduplication, and they differ according to the number of syllables reduplicated. There are also verbs that only exist in reduplicated forms because the iterative aspect is inherent to the nature of the process they describe, such as: papar 'count, numerate', $\beta e \beta e$ 'fly', pupur 'boil', bubur 'gush', etc. ${ }^{[2]}$

[^98]Monosyllabic reduplication expresses event-internal repetition, as shown in (302). When reduplicated, transitive verbs indicate that the action is performed on different objects one at a time (302a). Meanwhile, in intransitive verbs, reduplication indicates that the action is performed by the actors successively or simultaneously (B02b). This is the iterative aspect.
a. Aimokõkõy
a-i-mokõy-kõy
1SG-R2-swallow.RED
'I swallow one after the other.' (VLB, I, 116)
b. Osisik
o-sik-sik
3-arrive.RED
'(S)He arrives again and again.' (AA, 53v)

Disyllabic reduplication indicates iterative or frequentative meaning, i.e., the repetition of the verbal process (303a). If the verbal root is monosyllabic, it is possible to reduplicate two syllables by including the person index, as in (303b).
(303)
a. Wijemojewajewaka
wi-je-mo-jewak-jewak-a
$1 \mathrm{SG}_{\text {CORF }}$-RFLX-CAUS-embellish-RED-GER
'I keep embellishing myself.' (Poemas, 110)
b. Nesunesupa
ne $=\varnothing$-su $\beta$-ne $=\varnothing$-su-pa
$2 \mathrm{SG}=\mathrm{R}_{1}$-visit- $2 \mathrm{SG}=\mathrm{R}_{1}$-visit-GER
'Visiting you again and again.' (Teatro, 84)

### 6.5.3.2 Nuclear negation

Nuclear-level negation is characterized by the privative suffix -e?im ${ }^{[23]}$. Its privative meaning is clear from examples such as those in (304).
(304) a. Sie?ima
si-e?im-a
mother-PRIV-REF

[^99]'Orphan / motherless.' (VLB, II, 59)
b. Kere?ima
ker-e?im-a
sleep-PRIV-REF
'Sleeplessness.' (see Teatro, 34; AC, 53)

In (305a) the privative is used as an argument, contrasting with its function in (305b), where the nominal with the privative suffix is the predicate:
a. Nojpotaripe
Tupã $\int$ ere?õeßima
feretãme
Na-o-i-potar=pe Tupã $\int e=r-e ? \tilde{o}-e ? i m-a \quad \int e=r-e t a m-p e$
NEG-3-R-want=Q God $1 \mathrm{SG}=\mathrm{R}_{1}$-death-PRIV-REF $1 \mathrm{SG}=\mathrm{R}_{1}$-country-LOC
wisó $\beta$ o?
wi-so- $\beta$ o
$1 \mathrm{SG}_{\mathrm{CORF}}$-go-GER
'Doesn't God want that I do not die (my death-less-ness) to go to my country?'
(D’Abbeville, Histoire, 35lv)
b. Marãpe perußisaßetae?im?
marã=pe pe=r-ußisa $\beta$-eta-e?im
why-Q 2PL=R1-chief-many-PRIV
'Why don't you have many rulers?' (Léry, 362)
c. Serekokatupire?imetémo
s-ereko-katu-pir-e?im-ete-mo
$\mathrm{R}_{2}$-treat-GOOD-DEV.PASS-PRIV-INTS-IRR
'He would be not very well treated.' (Léry, 353)

Although it is clearly more frequently used with nominals, the privative $-e$ ? $\mathrm{i} m$ is also found with verbal predicates:
(306) Ajukae?im
a-i-juka-e?im
1SG-R2-kill-PRIV
'I don't kill (it/him/her/them).' (AA, 20)

## Lexical categories

Chapter $\pi^{4}$ has shown that word classes are defined according to the combination of semantic categories and the speech act function they perform, and that there is a morphological difference between possessive and non-possessive predication. This section further discusses word classes, lexical categories, and some predicate types.

### 7.1 Predicate semantic classes

Aktionsart predicate classes were presented in Section [3.3. These, as expected, account for TUP-specific morphosyntactic generalizations or distinctions. Aktionsart predicates are described in terms of their LS, which includes the minimum number of semantic arguments that each predicate may require. This section discusses the representation of these logical structures for predicates in Tupinambá.

### 7.1.1 State predicates

States describe situations that do not change over time ${ }^{\text {I }}$. They are also atelic, i.e., they do not have an endpoint.

The single argument (x) is an entity being identified by the predicate, in the case of identificational state as in (B07) with its representation in Figure (Z.l), but an entity bearing

[^100]the specific individual-level property denoted in the root in the case of an attribute predicate, as in (308).

```
(307)
\begin{tabular}{llll} 
Tupã & raßira & iko & \(a \beta a\) \\
Tupã- \(\varnothing\) & r-aßir-a & iko & \(a \beta a-\varnothing\) \\
God-REF & \(R_{1}\)-son-REF & DEM & man-REF
\end{tabular}
'This man is the son of God.' (Ar, 64 modified)
equate' (Tupã ta?ira,iko a \(\beta\) a)
```



Figure 7.1: Object word in predicate function
(308) $\int \operatorname{ero} \beta \mathrm{i}$
fe=r-oßi
$1 \mathrm{SG}=\mathrm{R}_{1}$-blue(ness)
'I am blue.' (VLB, I, 49)
([have.as.part' ${ }^{\prime}(1 \mathrm{SG}, \mathrm{blueness})$ ]

Physical, emotional, or mental experiences are temporary, stage-level states that have come about for an EXPERIENCER argument. State experiences do not denote cognitive attention or direction. The experiencer is not a controller of the state of affairs. Experiential states may be used as stative modifiers in a reference phrase, and their logical structure is feel $^{\prime}\left(x,\left[\operatorname{root}^{\prime}\right]\right)$. The latter will be used in order to differentiate experience states from other stative predicates. Examples are given in (309).
(309) Undergoer $=$ experiencer
a. Seputupa $\beta$
$\mathrm{e}=\varnothing$-putupa $\beta$
$1 \mathrm{SG}=\mathrm{R}_{1}$-amaze
'I am amazed.' (Léry, 353)
feel $^{\prime}$ (I, [amazement'])
b. Sero?i
fer-ôi
$1 \mathrm{SG}=\mathrm{R}_{1}$-cold
'I am/feel cold.' (Léry, 367)
feel $^{\prime}\left(\mathrm{I},\left[\right.\right.$ cold $\left.\left.^{\prime}\right]\right)$

M-transitive state verbs have actors as cognizers, emoters, judgers, and other semantic roles as actors, as in (310):
(310)
a. Actor $=$ cognizer, undergoer $=$ content

Naik ${ }^{w}$ aßi aPe aßa
na-a-i-k ${ }^{\mathrm{w}}{ }^{\beta}$-i aPe aßa
NEG-1SG=R1-know-NEG DEM man- $\varnothing$
'I do not know this man.' (Araújo, 57)
$\mathbf{k n o w}^{\prime}(1 \mathrm{SG}$, aPe aßa)
b. Actor $=$ emoter, undergoer $=$ target

Asausu kujãkarai $\beta$ a
a-s-awsu $\beta$ kujã-karai $\beta$-a
1 -SG=R $\mathrm{R}_{1}$-love woman-non.indian-REF
'I love a white woman.' (D’Evreux, Viagem, 252)
love' $^{\prime}(1 \mathrm{SG}$, kujãkaraißa)
c. Actor $=$ judger, undergoer $=$ judgement

Naimo?ayi neso
na-a-i-mo-Ray-i ne $=\varnothing$-so- $\varnothing$
NEG-1SG-R2-CAUS-idea-NEG 2 SG=R1-go-REF
'I do not understand you going.' (VLB, II, 110)

### 7.1.2 Activity predicates

Activity predicates are dynamic and temporally unbounded. Their logical structure is of the type do ${ }^{\prime}\left(\mathrm{x},\left[\right.\right.$ predicate $^{\prime}(\mathrm{x})$ or ( $\left.\left.\mathrm{x}, \mathrm{y}\right)\right]$ ).
(311)
a. Actor $=$ mover

Ereso
ere-so
2SG-go
'You go/went.'
do $^{\prime}\left(2 \mathrm{SG},\left[\right.\right.$ move.away.from.ref.point $\left.\left.{ }^{\prime}(2 \mathrm{SG})\right]\right)$
b. Actor $=$ mover

Ajãkatune
a-jãn-katu=ne
1SG-run-much=FUT
'I will run a lot.' (AT, 25)
$\mathbf{d o}^{\prime}\left(1 \mathrm{SG},\left[\mathbf{r u n}^{\prime}(\mathrm{I})\right]\right)$
c. Actor $=$ light emitter
$\mathrm{K}^{\mathrm{w}}$ arasio $\beta$ era $\beta$
$\mathrm{k}^{\mathrm{w}} \operatorname{arasi}-\varnothing \quad$ o- $\beta \mathrm{era} \beta$
sun-REF3-shine
'The sun certainly shines.' (see Poemas, 142)
do $^{\prime}$ (kwarasi, [shine ${ }^{\prime}$ (kwarasi) $]$ )
(312) Actor $=$ user, undergoer=implement

Ejporu nejemo?eawera
e-i-poru $\quad$ ne= $\varnothing$-je-mo-Re-a $\beta$-wer-a
2SG.IMP-R2-use 2 SG=R1-RFLX-CAUS-say-NMLZ-PST-REF
'Use what you learned.' (VLB, I, 131)
$\mathbf{d o}^{\prime}\left(\mathrm{e},\left[\mathbf{u s e}^{\prime}(\mathrm{e}\right.\right.$, nejemo?eawera $\left.\left.)\right]\right)$

### 7.1.3 Achievement predicates

Achievement verbs denote a punctual change of state which achieves an end point. They can be achievement INGR predicate ${ }^{\prime}(\mathrm{x})$ or $(\mathrm{x}, \mathrm{y})$ or causative achievement $\left[\mathrm{do}^{\prime}(\mathrm{x}, \varnothing)\right.$ ]

CAUSE [INGR predicate' $(\mathrm{y})$ ]. Examples are given below. Verbs such as $\beta$ ok 'blast off', Par 'fall', and sok 'break' only have an achievement sense and are M-intransitive.

[^101]'Your heart blasted off.' (AP, 120)
INGR blast.off' (3[neji? ${ }^{\prime}$ ])
b. ORar i $\beta$ ipe
o- $\operatorname{Zar} \dot{\mathrm{i}} \beta \dot{\mathrm{i}}-\varnothing$-pe
3-fall meat-REF earth-REF-LOC
'It fell on the floor.' (VLB, I, 72)
INGR fall' (3)
c. Osok
o-sok
3-break
'It breaks.' (AA, 53v) INGR break' (3)

Some verbs have an achievement sense and a causative achievement counterpart:
(314)
a. Ita ojeka
ita- $\varnothing \quad$ o-je-ka
stone-REF 3-RFLX-break
'The stones break.' (see Araújo 1618b, 64)
INGR break' (3[ita])
b. Erejoka
ere-jo-ka
2SG-R2-break
'You break them.' (see Anchieta 2006, 48)
$\left[\mathbf{d o}^{\prime}(2 \mathrm{SG}, \varnothing)\right]$ CAUSE [INGR broken' ${ }^{\text {jo }}$ ) $]$

### 7.1.4 Semelfactive

(315) Semelfactive verb: actor PSA

Ajemoesaßik
a-je-mo-esa- $\beta \mathrm{jik}$
1SG-RFLX-CAUS-eye-touch
'I blinked.' (VLB, I, 79)
SEML do ${ }^{\prime}$ (1sG, [blink ${ }^{\prime}$ (I) $]$ )

### 7.1.5 Accomplishments

Accomplishments are processes with endpoints.
(316) a. Accomplishment verb: undergoer PSA
$\mathrm{A} \beta \mathrm{a} \quad$ omanõ
a $\beta \mathrm{a}-\varnothing$ o-manõ
man-REF 3-die
'A man died.' (Fig., Arte, 69)
BECOME dead ${ }^{\prime}$ (3sg [man])
b. Active accomplishment

```
Jasi maRe o?u
jasi- }\varnothing\mathrm{ maRe- }\varnothing\mathrm{ o-Ru
moon-REF thing-REF 3-eat
'A thing ate the moon.'(VLB, I, 108)
do'
consumed''(3[jasi])
```


### 7.2 Morphological predicate types

Lexical roots functioning as predicates can be divided into two types: nominal existential predicates that combine with Set I indexes and 'verbal' predicates that combine with indexes from Set II. Both types share morphology associated with some grammatical categories, as the examples below attest.

Both may receive the future tense marker:
a. Ajukane
a-i-juka=ne
1SG-R2-kill=FUT
'I will kill him.' (FA, 7)
b. NeRãkitinokine
ne $=\varnothing-$ Rã $y-k i t i j o k=n e$
$2 \mathrm{SG}=\mathrm{R}_{1}$-soul-clean.rubbing $=\mathbf{F U T}$
'You will have a clean soul.' (DC, II, 113)

Both receive the same negation:
(318) a. NamaPẽi
n-a-ma?ẽ-i
NEG-1SG-see-NEG
'I do not look at it.' (VLB, I, 70)
b. Naferori $\beta \mathrm{i}$
$\mathbf{n}$ - $\mathrm{e}=\mathrm{r}$-ori $\beta$ - $\mathbf{i}$
NEG-1 SG= 1 $_{1}$-happy-NEG
'I am not happy.' (AA, 34v)

Both types of predicates combine with the irrealis marker:
a. Asómo
a-so-mo
1SG-go-IRR
'If I went.' (FA, 142)
b. Sesu?umo mariwi
$\int \mathrm{e}=\varnothing$-suPu-mo mariwi
$1 \mathrm{SG}=\mathrm{R}_{1}$-bite-IRR mariwi
'A bug would sting me.' (Teatro, 64)
(320)
a. OjeRu
o-je-Pu
3-RFLX-eat
'He eats himself.' (FA, 142)
b. Sejejok
$\int e=\varnothing$-je-jok
$1 \mathrm{SG}=\mathrm{R}_{1}$-RFLX-sob
'I sob.' (Teatro, 64)

Other types of predicates, which are associated with complex sentences, are discussed in Chapter (10).

### 7.3 Nominal Categories

This section deals with nominal categories in Tupinambá. These are: tense/aspect, degree (diminutive, augmentative, and intensity), nominal number, and alienability.

### 7.3.1 Nominal tense

The nominal tense in Tupinambá is indicated by the suffixes -pwer $\sim$-wer 'nominal past' or -ram $\sim$-wam 'nominal future'. Cognates of these morphemes are common in Tupí-Guaraní
languages and have been treated as nominal tense in other language descriptions (Sekil 2000, 54, Neiva Praça 2007, 19, Harrison and Harrison 2013, 20,98), and also as nominal aspect markers, in spite of terminological differences (Rose 2011, 236). This distinction, however, is irrelevant, as observed by Bertinetto (2020), because any tense by definition conveys a range of values in each TAM-component, besides the temporal reference. ${ }^{\text {D }}$

Examples of past tense are given in (1221) and examples of future tense are given in (322):
a. $\mathrm{Ok}^{\mathrm{w}}$ era
ok-p ${ }^{\text {w }}$ er-a
house-PST-REF
'A degraded version of a house / former house.' (AA, 33v)

$\begin{array}{lll}\text { a. Tupã sirama } & \varnothing \text {-ri } & \text { imojajipira } \\ \text { Tupã } \varnothing \text {-si-ram-a } & \varnothing \text {-ri } & \text { i-mojay-i-pir-a } \\ \text { God } \mathrm{R}_{1} \text {-mother-FUT-REF } & \mathrm{R}_{1} \text {-POSP } & \text { R }_{2} \text {-make-EPNT-NMLZ } \\ \text { pass-REF }\end{array}$
'She was made to become the (future) mother of God.' (Poemas, 88)
b. Ajune ise, peremi?urama!
a-jur=ne ise pe=r-emi-?u-ram-a
1SG-come=FUT I 2 PL= R $_{1}$-RES-eat-FUT-REF
'I am coming, I, your future meal!' (Staden, 67)

The nominal past, as exemplified in (321a), denotes not only 'a degraded version of a house', e.g., a house without a roof, or the ruins of a house. It also denotes the time at which the noun property or the possessive relation holds, so that okwera could also mean 'the former house (of someone)'. The same applies to the future tense, as in (B23]), which

[^102]may indicate a house that already exists, but will belong to someone who will live there, or it may indicate a house that is being constructed but is not yet finished.
(323) Okwama
ok-ram-a
house-FUT $\mathbf{N}^{-R E F}$
'Future house.' (cf. VLB, I, 108)

An interesting example is (324), which was the Jesuit choice for referring to the communion wafer after it becomes the body of Christ.
(324) Miapep ${ }^{w}$ era
miape- $p^{w}$ er-a
bread-PST $\mathbf{N}^{-R E F}$
'What was bread (the communion wafer).' (cf. AC, 87)

The representation of (325) is given in Figure [2.2, showing the nominal tense operator.

Jerok ${ }^{\mathrm{w}}$ ama aimojay
$\mathrm{e}=$ =r-ok-wam-a a-i-mojaŋ
$1 \mathrm{SG}=\mathrm{R}_{1}$-house-FUT $\mathrm{N}_{\mathrm{N}}$-REF $1 \mathrm{SG}-\mathrm{R}_{2}$-make
'I am making my future house.' (VLB, I, 108)
(326) Ajune ise, peremiPurama!
a-jur=ne ise, pe=r-emi-Ru-ram-a
1 SG-come=FUT I 2 SG=R R $_{1}$-RES-eat-FUT ${ }_{N}$-REF
'I am coming, I, your future meal!' (Staden, 67)

It is possible to combine both past and future morphemes to form ramwer $<$ ram + $p^{w}$ er, and $p^{w}$ eram $<p^{w}$ er + ram $^{[3]}$. Their meaning is illustrated in the examples in (B27) and (328):
a. Mijukaramwera
(e)mi-juka-ram-pwer-a

RES-kill-FUT $\mathbf{N}_{\mathbf{N}}-\mathbf{P A S}_{\mathbf{N}}$-REF

[^103]

Figure 7.2: The nominal tense RP operator
'What would have been killed (but wasn't).' (AA, 19v)
b. Ajaya ratápe soramwera

Ajaja r-ata=pe so-ram-p ${ }^{\text {w }}$ er-a
Devil REL $_{1}$-fire-LOC go- $^{-\mathbf{F U T}_{N}} \mathbf{- P S T}_{\mathbf{N}}$-REF
'Should have gone to Devil's fire.' (DC, II, 77)

As Bertinetto (2020) observes, the combination of the past with the future marker retrospective and prospective in his terminology - gives the modal meaning of counterfactuality:
a. Itĩmwerama
i-ṫ̃̇m-p ${ }^{w}$ er-ram-a
$\mathrm{R}_{2}$-bury- $\mathbf{P S T}_{\mathbf{N}}-\mathbf{F U T}_{\mathbf{N}}$-REF
'What will have been his burial.' (AC, 56v)
$P^{w}$ and ram also appear as the head of an RP, as in (329), or as nominal modifiers (see examples above). This does not imply that these are lexical roots only. They are both functional and lexical roots. They were, at the time of the first descriptions, already in the process of grammaticalization, since in spite of functioning as RPs, they still exhibit an allomorphy similar to that of suffixes (see Rodrigues (2010b) and Cruz (2016, 64)).

In (329), $p^{w}$ er is used as the head of a nominal predicate; in (B30), ram is the head of an RP, as it also is in 331:
(329) $\mathrm{Ip}^{\mathrm{w}}$ er tekoaí $\beta$ a
i-p ${ }^{\text {w }}$ er $\quad$ t-eko-ai $\beta$-a
$\mathrm{R}_{2}-\mathbf{P S T}_{\mathrm{N}} \mathrm{R}_{4}$-state-bad-REF
'His/her/their affliction has passed.' (AA, 33v)
(330) Neram
ne= $\varnothing$-ram
$2 \mathrm{SG}=\mathrm{R}_{1}-\mathrm{FUT}_{\mathrm{N}}$
'You will be/there is your future.' (AA, 33v)
(331) Serampwer
$\int \mathrm{e}=\varnothing$-ram-pwer
$1 \mathrm{SG}=\mathrm{R}_{1}-\mathrm{FUT}_{\mathrm{N}}-\mathrm{PST}_{\mathrm{N}}$
'I got frustrated.' (VLB, II, 1O)

### 7.3.2 Diminutive and augmentative

The diminutive form of a noun is ( $?) \tilde{i}$ and it expresses the small size, small quantity of a referent, or even affection. This is the same suffix used to indicate the lusive aspect of processes (see Section 6.5.3.1]).
a. Pitanginamo ereiko pitay-ï-ramo ere-iko
child-DIM-TRSL 2SG-be
'You are like a little baby.' (AP, 100)
b. Asawsu $\beta$ nemembirĩ
a-s-awsu $\beta$ ne $=\varnothing$-membir- $\tilde{i}$
1 SG-R2-love $2 \mathrm{SG}=\mathrm{R}_{1}$-son-DIM
'I love your little child.' (AP, 102)
c. IpeseRõp ${ }^{w}$ erĩ jaßiõ sekow?
i-pese?õ-p ${ }^{\mathrm{w}}$ er- $\tilde{\mathrm{i}} \quad$ jaßiõ seko-w
$\mathrm{R}_{2}$-be.in.pieces-DIM each $\mathrm{R}_{2}$-be-NFOC
'Is it in each tiny piece?' (DC, I, 216)

The diminutive suffix may also express a small quantity:
(333)


```
oréße!
ore=\betae
1PL.EXCL-DAT
```

'May your son share some of his virtue with us!' (Araújo, 32v)

It is also used in many adverbials referring to a short period of time, brevity, closeness, or something that is imminent:
(334) a. Ko?ĩ 'very near'
b. Korite? $\tilde{i}$ 'soon, quickly'
c. $\mathrm{k}^{\mathrm{w}} \mathrm{e}$ ? $\tilde{\mathrm{i}}$ 'near the hearer'
d. Mewe? $\tilde{i}$ 'very slow, slowly'
e. Rame? $\tilde{i}$ 'similar'

The augmentative form of a noun is marked by the addition of $u s u \sim$ wasu and it expresses the large size of a referent and the positive quality or essence of something or someone.
a. Okusu ok-usu- $\varnothing$
house-AUG-REF
'Big house.' (AA, 13v)
b. Guaisara maranusu

Guaisara maran-usu- $\varnothing$
Guaisara battle-AUG-REF
'The big Guaixara battle.' (Teatro, 20)

Just like the diminutive suffix, albeit its opposite in meaning, the augmentative suffix -usu may also express a large quantity, as in (336).
(336) Arurusu
a-er-ur-usu
1SG-SCAU-come-AUG
'I brought many/ a large quantity.' (AA, 13v)

In (337a), katu 'goodness' functions as a nominal modifier, while in (337b) it functions as a verbal modifier (adverb). However, katu can also function as the nucleus of an RP, as in (337d). Besides the referential marker (REF) in (B37d) there is no morphology differentiating the functions of katu in the examples (337).
a. Tußisakatu
t-u $\beta$ isa $\beta$-katu
$\mathrm{R}_{4}$-chief-good
'Good chiefs.' (Poemas, 104)
b. Ajemingatu
a-je-mim-katu
1SG-R2-hide-good
'I hide myself properly.' (AT, 34)
c. ARe aPe ko $\beta$ me?e katu mengara rePa
aPe aPe koßare katu- $\varnothing$ me?eng-ar-a re?a DEM PRCL DEM goodness-REF give-NMLZ-REF perhaps $m_{m}$
'It is perhaps this one, the giver of goodness.' (Araújo, 66v)

### 7.3.3 Nominal number

Number is not a grammatical category of TUP nouns, which are optionally marked, not by a suffix but by the lexical root eta 'great number, multitude, many), which functions as a nominal modifier (see Anchieta 1595, 8v). The use of eta as a plural marker can be seen in (B38).
(338) Jewakaßeta
je-wak-a $\beta$-eta
RFLX-adorn-NMLZ-many
'Many ornaments.' (Poemas, 112)

The usage of eta as a lexical root can be understood from examples such as those in (339).

```
a. Oré reta
ore r-eta- \(\varnothing\)
1PL.EXCL R1-many-REF
'We are many.' (VLB, II, 44)
```

b. Ererupe
ere-ero-ur=pe
itá- $\varnothing \quad \varnothing$-kise amõ a-ero-ur-eta
2SG-SCAU-come=Q stone-REF $\mathrm{R}_{1}$-knife some 1 SG-SCAU-come-many
'Did you bring some iron knives? Yes, I brought many.' (Léry, Histoire, 346)
c. Oretupãoketa
ore $=\varnothing$-tupã-ok-eta
1PL.EXCL=R1-God-house-PL
'We have many churches.' (Poemas, 114)
d. Seanameta aroporasej seru
$\int \mathrm{e}=\varnothing$-anam-eta a-ero-porasej s-er-ur
$1 \mathrm{SG}=\mathrm{R}_{1}$-relative-PL 1 SG -SCAU-dance $\mathrm{R}_{2}$-SCAU-come.GER
'Bringing my (many) relatives, I make them dance with me.' (Poemas, 138)
e. Kunumieta
kunumi-eta- $\varnothing$
boy-many-REF
'(Many) boys.' (AT, 26)
f. Tatáendieta osep ${ }^{j}$ ak
tata-endi-eta- $\varnothing \quad$ o-s-ep ${ }^{j}$ ak
fire-flame-many-REF $3-\mathrm{R}_{2}$-see
'They saw (many) flames of fire.' (see Araújo, 45)

Another way of indicating plurality or collectives other than eta is through reduplication. Although poorly attested, it is reasonable to suspect that this strategy was somewhat productive because it is present in many TG languages. In TUP one finds: mirí 'small thing' (Anonymous 1952a, I, 78) and mirimiri 'small things' (Anonymous 1952a, II, 39); with the root tiy, there are formations such as ti-tiy-a: Pa-titia 'white stains on the hair' (AnOnymous 1952a, II, 29), Papi-titia 'white stains on the head', titina 'white stains on the skin, yeasts" ${ }^{\text {田 }}$

When accompanied by numerals, nouns remain unchanged an cannot combine with

[^104]eta:
(340) Mokõj apiaßa
mokõj аріа $\beta$ а- $\varnothing$
two man-REF
‘Two men.' (AA, 9v)

The collective can be expressed by adjoining roots to the root $t \dot{t} \beta$ 'gathering, set, great number of'.
a. Takwarasuti $\beta$ a
takwara-su-ti $\beta$-a
bamboo-big-abundance-REF
'Place of many bamboos / canebrake.' (Staden, 116)
b. PaPiwasu irũndi $\beta$ a
paii-wasu- $\varnothing$ irũ-tì $\beta-a$
master-big-REF companion-set-REF
'The companions of the master.' (Poemas, 114)

### 7.3.4 Alienability and Inalienability

Tupinambá has one class of possessed and one of non-possessed nouns. The former consists of utensils, kinship, and body parts terms, and the latter of natural elements such as trees, animals, celestial bodys, and etc. A alienable and inalienable distinctions seems to have been lost, since a mark of alienability $-e$ - that still exists in some languages such as SatereMawé (Silva et all 2010), Awetí (Reiter 2012), and Mundurukú (Gomes 2006), has left traces in a Tupinambá. It can be seen in some nouns of class IId (see Table 4.5). Nouns like (e)kuj 'gourd', (e)pinõ 'fart', (e)poti 'feces, defecate’, (e)panaku 'basket', and (e)nimo 'thick thread' still maintain the initial $e$ in some form of the possessed paradigm, as in the example (342), where the possessed form has the $e$ :

$$
\begin{array}{lll}
\text { a. } & \text { Waj } \beta \tilde{\mathrm{i}} & \text { rekuja }  \tag{342}\\
\text { waj } \tilde{\mathrm{i}}-\varnothing & \text { r-ekuj-a } \\
\text { elderly.woman-REF } & \text { R }_{1} \text {-gourd-REF } \\
& \text { 'Old women's gourds.' (AT, 30) }
\end{array}
$$

b. Kuja jẽ itĩja-tîŋáßo
kuj-a jẽ i-tí-ka-tí-ka- $\beta$ o
gourd-REF PRCL $R_{2}$-point-break-point-break-GER
'Continuously breaking the tips of the gourds.' (AT, 170)

### 7.4 Postpositions

Postpositions form an important minor closed class in Tupinambá. They express temporal or spatial relations between parts of a sentence: its object or complement and the predicate or a non-predicative noun (Hagège 2010, 1). When the complement of a postposition is a person index, only Set I indexes (see Table 4.3) are used.

As already mentioned (see Section 4.3.2), postpositions take relational markers, signalizing their contiguity with their dependents (objects), possibly because these are grammaticalized lexical roots. The following sections provide an overview of some postpositions and their meanings and uses.

In Section 4.3.2, it was stated that postpositions combine (obligatorily) with relational markers, as in (343):

```
a. APar nepupe
a-Rar ne= \(\varnothing\)-pupe
1SG-fall \(2 \mathrm{SG}=\mathrm{R}_{1}\)-POSP
'I board with you.' (Anch., Arte, 40v)
```

b. Oso ferenone
$o$-so $\int e=r-e n o n e$
3-go $1 \mathrm{SG}=\mathrm{R}_{1}$-ahead.of
'He goes/went ahead of me.' (FA, 122)
c. Isupe e
i-DAT e
$\mathrm{R}_{2}$-to PRCL
‘To him indeed.' (Anch., Arte, 54)
d. Sese oroso
s-ese oro-so
$\mathrm{R}_{2}$-with 1PL.EXCL-go
'I go with him / We go together.' (AA, 44v)

Nonetheless, there are instances of postpositions that seem to be in the process of grammaticalization, displaying an intermediary stage between, e.g., postpositions and case markers (see Section [.8). These cases are well known cross-linguistically and have been discussed in the literature (see e.g., Hopper and Traugott 2003; Hagège 2010; Lehmann 2015; Kuteva et al. 2019). Here they are referred to as unstressed suffixes which are not preceded by relationals. The most frequent unstressed suffix is supe 'to, against' (see Section (5.3).
(344) a. Ise supe ${ }^{6}$
ise supe
I to
‘To me.' (VLB, II 64)
b. Eresikijpe Ajãya, Tawaißa, Kurupira, Jurupari kojpo te?õ
ere-s-ikij=pe Ajãga Tawaißa Kurupira Jurupari kojpo t-e?õ- $\varnothing$
2SG-R2-invoke=Q Anhanga Taguaiba Kurupira Jurupari or $\quad \mathrm{R}_{4}$-death-REF
$\mathrm{a} \beta \mathrm{a}$ supe?
$a \beta a-\varnothing \quad$ supe
person-REF to
'Did you invoke the devil, Taguaiba, Kurupira, Jurupari or the death upon someone?'
(Araujo, 102v)

### 7.4.1 Postposition swi

$S w i$ is an ablative postposition and thus indicates motion away from something.
a. Ajur Sekoswi
ajur $\quad \int \mathrm{e}=\varnothing$-ko- $\varnothing \quad \varnothing$-swi 1 SG -come $1 \mathrm{SG}=\mathrm{R}_{1}$-slash-REF $\mathrm{R}_{1}$-from
'I came from my slash.' (FA, 9)
b. Emonã rako sekow neswi
emonã rako s-eko-w ne= $\varnothing$-swi
this.way ADV R-act-NFOC 2 SG=R-from

[^105]'Thus she reacted, actually, in your absence (being away from you).' (Araújo, 74)
c. i $\beta$ aka swi erejur
ißak-a swi ere-jur sky-REF from 2SG-come
'You came from the sky/heaven.' (Poemas, 100)

### 7.4.2 Postposition ese

Esé combines instrumental and comitative meanings, as in (346).
(346) Nerese memẽ orojkó
ne=r-ese memẽ oroiko
$2 \mathrm{SG}=\mathrm{R}_{1}$-with always 1 PL.EXCL-be
'We are always with you.' (Poemas, 84)
(347) Nerejk ${ }^{w}$ aßipe ko?ìr te?õ nerese seko?
n-ere-i-k ${ }^{\text {w }} \beta$-i=pe ko?ìr t-e?õ- $\varnothing$ ne=r-ese s-eko
NEG-2SG-R2-know-NEG=Q now $\mathrm{R}_{4}$-death-REF $2 \mathrm{SG}=\mathrm{R}_{1}$-with $\mathrm{R}_{2}$-be
'Do you not know that death is with you?' (D'Abbeville, Histoire, 350)

Besides the comitative meaning, ese expresses direction: 'towards'.

Similar to the postposition ese is the postposition $i^{[D}$, which cannot be used with the non-contiguous marker $\left(\mathrm{R}_{2}\right)$.

'Through our actions, by the way, will we be in $\sin$. ' (CC, 6, 46)
b. Seputupa $\beta$ jẽ neri

ле- $\varnothing$-putupa $\beta$ је̃ ne=r-i
$1 \mathrm{SG}=\mathrm{R}_{1}$-surprise $\operatorname{PRCL} 2 \mathrm{SG}=\mathrm{R}_{1}$-with
'You surprised me! (I am surprised because of/with you)' (Léry, Histoire, 353)

[^106]
### 7.4.3 The case of $i r u \tilde{u}$

Ir $\tilde{u}$ is not a comitative postposition. It is a lexical root meaning 'companion', as in (349a). It often receives the translative case (see Section [.8.3) to take the form irũramo (iru + ramo) 'as/in the quality of a companion' in order to express a comitative meaning, as in (350)).
a. Tajko neirũ
t-a-iko ne= $\varnothing$-irũ
HORT-1SG-be $2 \mathrm{SG}=\mathrm{R}_{1}$-companion
'May I be your companion.' (Léry, Histoire, 372)
b. Tereiko paßi Nikora irũ t-ere-iko pąi Nikora $\varnothing$-irũ HORT-2SG-be master Nicolau $\mathrm{R}_{1}$-companion
'May you live as a companion of master Nicolau (with Nicolau).' (Léry, 352)
a. Neirũramo janejara rekow
ne $=\varnothing$-irũ-ramo jane $=\varnothing$-jar-a r-eko-w
$2 \mathrm{SG}=\mathrm{R}_{1}$-companion-TRSL 1PL.INCL-lord-REF $\mathrm{R}_{1}$-be-NFOC
'Our Lord is with you (is as your companion).' (Araújo, 31v)
b. A $\beta$ ape irũramo turine?
aßa=pe irũ-ramo t-ur-i=ne
person=Q companion-TRSL $R_{2}$-come-NFOC=FUT
'Who will come with him/as his companion?' (Araújo, 46v)

One possible source of confusion is the fact that $i r \tilde{u}$ has an initial $i$ and therefore, when preceded by the relational of non-contiguity $\left(\mathrm{R}_{2}\right)$, no additional $i$ is written down. This has led to confusion where irũ was often understood as a postposition, a fact already noted by Anchieta (1595, 6). Compare (351a) with (351b).
(351) a. Irũ
irũ
'(A/The) Companion(s).' (AA, 6)
b. Irũ
i-irũ
$\mathrm{R}_{2}$-companion
'With him / He has (a) companion(s).' (AA, 6)

### 7.4.4 Some special cases

Some postpositions cover a wide range of meanings. This can be illustrated with examples containing the postposition ese, which has locational or directional meaning:

| a. | TeRõ | nerese | seko |
| :--- | :--- | :--- | :--- |
| t-eRõ- $\varnothing$ | ne=r-ese | s-eko |  |
| $R_{3}$-death-REF | $2 \mathrm{SG}=\mathrm{R}_{1}$-with | $\mathrm{R}_{2}$-be |  |

b. Tupana rese ajko

Tupana r-ese a-iko
God $\quad \mathrm{R}_{1}$-in 1SG-be
'I live in contact with God.' (FA, 166)
c. Ne emojeta neTupã tok ${ }^{\mathrm{w}} \mathrm{a} \beta$ Pe amanusu
ne e-moŋeta ne $=\varnothing$-Tupã $t-o-k^{w} a \beta$ Pe aman-usu- $\varnothing$
You 2SG.IMP-pray $2 \mathrm{SG}=\mathrm{R}_{1}$-God HORT-3-pass say rain-AUG-REF
janemomarane?ima rese
jane $=\varnothing$-mo-maran-e?im-a r-ese
1PL.INCL-R $1_{1}$-CAUS-destroy-PRIV-REF $\mathrm{R}_{1}$-in-order.to
'Pray your God for the storm to be over, for us not to be destroyed.' (Staden, 66)

Just as one postposition expresses different meanings, one and the same meaning may be expressed by different postpositions, as in ([353]), where the comitative meaning is expressed by different roots:

```
a. TisaPay apiaßa marã janeirũ
    t-ja-s-aPa\eta аріаßа- }\varnothing\varnothing\mathrm{ -marã- }\varnothing\quad\mathrm{ jane= }\varnothing\mathrm{ -irũ
    HORT-1PL.INCL-R 2-try man-REF R 1-power-REF 1PL.INCL=R }\mp@subsup{R}{1}{}\mathrm{ -companion
```

'May we experience the strength of the men, our companions.' (Léry, Histoire, 357)
b. MaRepiRawp ${ }^{j}$ ara kawíaißasi rese imonani, ipupe
maRe-piPa-ip ${ }^{\text {jar-a }}$ kawi-ai $\beta$-asi- $\varnothing$ r-ese i-monan-i i-pupe
thing-liver-enemy-REF beer-bad-pain-REF $R_{1}$-with $R_{2}$-mix-NFOC $R_{2}$-to
se?ima
s-e?im-a
$\mathrm{R}_{2}$-serve.drink-GER
'Giving him to drink a gall-like substance mixed with vinegar.' (Araújo, 63v)
c. Oroso Pedro ni
oro-so Pedro $\varnothing$-ni
1PL.INCL-go Pedro $R_{1}$-with
'I go with Pedro.' (AA, 44)

### 7.4.5 Other postpositions

This section offers a list of postpositions and postpositional clitics. Each is presented with their corresponding translations and an attested example.
(354) Seraje isemi
$\mathrm{e}=\mathrm{r}$-aje $\quad$ i-sem-i
1SG=R1-crosswise $\mathrm{R}_{2}$-exit-NFOC
'It came out of me crosswise.' (VLB, I, 102)
(355) Lisboa akweakoti

Lisboa $\varnothing$-akwe-a-koti
Lisbon $\mathrm{R}_{1}$-other-NMLZ-towards
'To the other side of Lisbon.' (VLB, I, 48)
(356) Sakip ${ }^{\text {w }}$ eri aso
s-akip ${ }^{\text {wer-i } \quad \text { a-so }}$
$\mathrm{R}_{2}$-footsteps-LOC 1SG-go
'I go behind him.' (VLB, II, 135)
(357) $\mathfrak{i} \beta$ itira amojoti
i $\beta$ itir-a $\quad \varnothing$-amõ-koti
mountain-REF $\mathrm{R}_{1}$-other-side
'Beyond the mountains.' (VLB, I, 31)
(358) Arasó Jeapiri
a-era-só $\quad \int \mathrm{e}=\varnothing$-apiri
1 SG -CC-go $1 \mathrm{SG}=\mathrm{R}_{1}$-along
'I take it with me.' (VLB, I, 35)
(359) i $\beta$ itinga Pari $\beta o$
i $\beta$ itinga $\operatorname{\text {Parí}} \boldsymbol{\beta} \mathbf{0}$
cloud $\mathrm{R}_{1}$-above
'Above the clouds.' (Araújo, 56v)
(360)

| Seatuaj | turi |
| :--- | :--- |
| fe $=\varnothing$-atua- $j$ | t-ur-i |
| $1 S G=R_{1}$-back-LOC | R $_{2}$-come-NFOC |

'He came from behind me (His coming was in my back).' (AA, 41v)
(361) $\mathrm{K}^{\mathrm{w}}$ eseßé maRe naPuj
$\mathrm{k}^{\mathrm{w}}$ ese- $\beta$ é maPe- $\varnothing \quad \mathrm{n}-\mathrm{a}-\mathrm{Pu} \mathrm{i}$
yesterday-more thing-REF NEG-1SG-eat-NEG
'I haven't eaten since yesterday.' (Poemas, 150)
(362) KaPáßo
kaPá- $\beta \mathbf{\beta o}$
wood-PERL
'Through the woods.' (VLB, II, 81)
(363) Osó ferenone
o-so $\int \mathrm{e}=\mathrm{r}-$ enone
3-go $1 \mathrm{SG}-\mathrm{R}_{2}$-in.front.of
'He went in front of me.' (FA, 122)
(364) Asawsu $\beta$ Pedro taPira rese $\beta$ e
a-s-awsu $\beta$ Pedro t-aPir-a r-esé $\beta \mathbf{e}$
1SG-R2-love Pedro $\mathrm{R}_{2}$-son-REF $\mathrm{R}_{2}$-together.with
'I love Pedro and his son.' (AA, 44)
(365)

Etupãmoneta orerese
e-tupã-moŋeta ore=r-ese
2SG.IMP-God-pray 1PL.EXCL-R 1 -for
'Pray (God) for us.' (DC, I, 148)

TUP shows a process which is reconstructed for Proto-Tupí-Guaraní, in which oblique (case) markers combined with spatial nouns or body-parts have been grammaticized as postpositions or adverbials (see Jensen 1999, 149). Some examples are given in Table 7.1.

### 7.5 Postposition assignment

Non-macrorole core arguments of ditransitive verbs or of intransitive verbs often require an indirect complement (see Sec. 5.3). These non-macrorole arguments can be seen under the

| Lexeme | Meaning | Case | Lexeme | Meaning |
| :---: | :---: | :---: | :---: | :---: |
| wiri | under | pe (locative) | wiripe | below |
| Par | top | 隹 (perlative) | Parißo | above |
| Par | top | i (locative body-part) | Pari | above, on top of |
| pi | foot | pe (locative) | pipe | near |
| i $\beta$ ir | margin | i (locative body-part) | i $\beta$ iri | along |
| atua | neck | i (locative body-part) | atuaj | behind, after |
| akip $^{\text {w }}$ er | back part | i (locative body-part) | akip $^{\text {w }}$ eri | on the trail of |

Table 7.1: Some TUP postpositions formed out of spatial nouns or body-parts

BECOME or INGR operators in the logical structure. The example below with the verb me?ey 'give' illustrates the argument marked by the postposition:

```
(366) A \betaa supe imaRe meReja
a\betaa- }\varnothing\mathrm{ supe i-maPe- }\varnothing\mathrm{ me?eng-a
man-REF DAT R2-thing-REF give-GER
```

'Giving men their things (justice).' (DC, 153)
$\left[\mathbf{d o}^{\prime}(\mathrm{x}, \varnothing)\right]$ CAUSE [BECOME have' $\left.{ }^{\prime}(\mathrm{a} \beta \mathrm{a}, \mathrm{imaRe})\right]$

The assignment of postpositions to non-macrorole core arguments follows strict rules that are language-specific (see Van Valin Jr and LaPolla I997, 352-383). In the case of supe, for example, the following rule can be formulated (367):

## (367) Rule assigning supe in TUP

Assign supe to the non-macrorole $x$ argument, if it is third person, in the logical structure segment: . . . BECOME/INGR pred ${ }^{\prime}(x, y)$

In case the non-macrorole core argument is first or second person, the rule must be formulated in terms of (368).

Case assignment for first- and second-person arguments in TUP
Assign $-\beta e /-\beta o$ to the non-macrorole $x$ argument in the logical structure segment:
... BECOME/INGR pred ${ }^{\prime}(\mathrm{x}, \mathrm{y})$

First and second person combine with the dative case $-\beta e /-\beta o$, but not with supe, as shown in (369):

a. Tasenõj ne $\beta e$<br>$t-a-s-e n o ̃ j$ ne- $\beta \mathbf{e}$<br>HORT-1SG-R 2 -name you-dAT<br>'May I name it for you.' (cf. Léry, 360)<br>b. Peimoŋeta Tupã janejara ise $\beta$ e<br>pe-i-mogeta Tupã jane $=\varnothing$-jar-a ise- $\beta \mathbf{e}$<br>SG-R2-talk God 1PL.INCL= $\varnothing$-lord-REF I-DAT<br>'Pray you to God for me.' (DC, I, 190)

Another example is given for the postposition swi 'from'. The rule for its assignment is given in (B70). An example is given in (B7]) with the verb Rok 'cut, remove, rip out':
(370) Rule assigning swi in TUP

Assign swi to the non-macrorole $x$ argument in the logical structure segment: ...BECOME/INGR
NOT pred ${ }^{\prime}$ (x,y)
(371)
$\begin{array}{lll}\text { Toje?ok } & \text { ise swi } & \text { feresaporopotara } \\ \text { t-o-i-e?ok } & \text { ise } \varnothing \text {-swi } & \text { fe=r-esa-poro-potar-a } \\ \text { HORT-3-R2-cut I } & R_{1} \text {-from } & 1 S G=R_{1} \text {-exe-ANTIP-want-REF }\end{array}$
'May my lustful eyes be pulled out of me.' (AP, 146)
$\left[\mathbf{d o}^{\prime}(3, \varnothing)\right]$ CAUSE [BECOME NOT have ${ }^{\prime}$ (ise, esaporopotara)]

### 7.6 Postpositional Phrase

The layered structure of the postposition (LSPP) is paralleled by the structure of the clause and LSRP (see Section B.2) and by the structure of the RP (see Chapter [8]). Its structure is given in Figure ([2.3). The object of the postposition is a core argument and thus is inside the core $_{\mathrm{p}}$.

Postpositional phrases can be predicative or non-predicative, and there are also postpositional phrases that function as arguments of the main predicate. Non-predicative PPs lack a layered structure. In this case, the postposition is not a semantic predicate, and the object is not a semantic argument of the adposition.


Figure 7.3: Structure of a predicative PP

### 7.6.1 Adjunct postpositional phrases

Predicative postpositions are, as the name indicates, predicates. They provide semantic information about the clause in which they occur, both in terms of their own meaning and in terms of the meaning of the RP that occurs with them (their argument). They are therefore adjuncts (or adverbials), elements that modify in some way the event or situation described by the main predicate. They may place the whole core in time or space, for example. This function is reflected in their semantic and syntactic representation. As shown in (372), represented in Figure [.4, the predicative PP takes the whole of the core as its second argument, and the adjunct postpositional phrase appears in the syntactic periphery.

```
(372) Oimoasipe ape rire ape i\betaaPuawera?
    o-i-mo-asi=pe a\e \varnothing-rire aPe i }\beta\mathrm{ --Ru-pwer-a
    3-R2-CAUS-pain=Q this R1-after this fruit-eat-PST-REF
```

'Did he regret it after eating that fruit? (Did he regret after it the past eating of this fruit?)' (DC, I, 163)
be-after $^{\prime}\left[\mathbf{d o}^{\prime}(3)\left[\mathbf{e a t}^{\prime}(3),\right]\right]\left\langle{ }_{\text {IF }} \operatorname{INT}\left[\boldsymbol{\operatorname { r e g r e t }}^{\prime}(3,3)\right]\right\rangle$

### 7.6.2 Argument-marking postpositional phrases

Contrary to adjunct postpositional phrases, argument-marking postpositions are non-predicative, because they are arguments of a predicate. They mark OCA of the predicate with a postposition (in case an oblique case is not used). The difference is clear when one compares


Figure 7.4: Predicative postposition
example (372) with example (373), where the oblique core argument is marked by the dative case, or with example (374), where the PP is an argument adjunct and therefore appears inside the core. The syntactic representation of (374) is given in Figure [.5.

| (373) | EimeRey | pina | ise $\beta e$ |
| :--- | :--- | :--- | :--- |
|  | e-i-me?ej | pina- $\varnothing$ | ise- $\beta$ e |
|  | 2SG.IMP-R2-give fishhook-REF | I-DAT |  |

'Give fishhooks to me.' (AA, 34)
$\left\langle\right.$ IF IMP $\left[\mathbf{d o}^{\prime}(2 \mathrm{SG}, \varnothing)\right]$ CAUSE [BECOME have' ${ }^{\prime}$ (ise, pina) $\left.]\right\rangle$
(374)

| Aotinga | onoy ase rese |
| :--- | :--- |
| ao $\beta$-tiy-a | o-noy ase r-ese |
| clothes-white-REF | 3-put we $R_{1}$-POSP |

'Put white garments on us.' (CA, 81v)
$\left\langle\left[\mathbf{d o}^{\prime}(3, \varnothing)\right]\right.$ CAUSE [BECOME be-LOC ${ }^{\prime}$ (aotig, ase)] $\rangle$

### 7.7 Particles

Particles are morphological entities realized as a phonologically free unit (see Bickel and Nichols (2005). Tupinambá, like other Tupían languages, is rich in particles, which confer nuances of many kinds to the sentence. They are operators, since they express grammatical features of lexical words such as temporal, modal, aspectual, discursive (e.g., discourse relations between propositional units), and illocutionary information (e.g., evidentiality). Although particles constitute a closed class in TUP, they are numerous. Some of these are illustrated in the following sub-sections. Each particle often expresses nuances of meanings,


Figure 7.5: PP as core argument
or even different meanings. In order to provide a clearer picture, a study devoted exclusively to TUP particles would be necessary, but such a study would face the fact that real discourse texts, such as legends, myths, etc. by native speakers are not attested, so it is impossible to know exactly what the meanings of certain particles are.

### 7.7.1 Aspect particles

The particle $m \tilde{a}$ is often used to describe an action that is about to be initiated (inceptive aspect). It often accompanies the optative illocutionary force (see section 6.5.L. $)$, but it may stand alone. It always appears in clause final position:

> a. Serejtik korine mã!
> fe=r-ejtik kori=ne mã $1 \mathrm{SG}=\mathrm{R}_{1}$-defeat today=FUT PRCL
'I will be defeated today / there will be my defeat today!' (AT, 28)
b. Naijukaiswe
n-a-i-juka-i-swe
temõ mã NEG-1SG-R2-kill-NEG-PRCL PRCL $_{\text {opt }}$ PRCL
'I hope I do not kill him / oh, if I only didn't kill him.' (Fig., Arte, 27)

### 7.7.2 Core modifying particles

Desideratives, intentionals, and deliberative necessarily refer to one of the core arguments, hence they must be core-level modifiers.

Temõ indicates the desiderative aspect. It appears seldom without the particle mã.
(376) Iariß temõ Jeswi mã
i-ariße temõ fe-swi mã
$\mathrm{R}_{2}$-cease $\mathrm{PRCL}_{\text {opt }} 1 \mathrm{SG}-\mathrm{ABL}$ INTJ
'Ah, if it only would cease.' (Araújo, 165)

The particle $k a$ expresses intention:
(377)
a. Aso ka
a-so ka
1SG-go PRCL
'I intend to go.' (FA, 139)
b. Asap ${ }^{j}$ akatupe aŋire ka
a-s-ap ${ }^{j}$ a-katu-pe aŋjire ka
1SG-R2-obey-well-PRCL henceforth PRCL
'I intend to obey him well henceforth.' (Araújo, 77)

### 7.7.3 Discourse particles

The particle $e$ emphasizes a constituent, sometimes as contrastive focus:
(378) Ene e ajpo ere, e?i
ene e ajpo ere-?e e-?i
you PRCL DEM 2SG-say, 3-say
'They say that YOU are saying it.' (Araújo, 56)

Another emphatic particle is $j \tilde{e}$ :
(379) Ajpo rese jẽ, koi asausu
ajpo r-esé jẽ, ko?i a-s-awsu $\beta$
DEM $\mathrm{R}_{1}$-becasue PRCL now $1 \mathrm{SG}-\mathrm{R}_{2}$-love
'Becase of this, in effect, I now love him.' (Poemas, 108)

The particle te is focal (see Anchieta 1595, 36:
(380)
a. MaReasißorate ajekatu i?uu
maPe-asi- $\beta$ or-a-te ajekatu i-Pu-u
thing-ill-HAB.AG-REF-FOC well $\mathrm{R}_{2}$-ingest-NFOC
'The ill certainly eat well.' (Araújo, 77v)
b. Jemite jepé iswí
$\int \mathrm{e}=\varnothing$-mim-te jepé i-swi
$1 \mathrm{SG}=\mathrm{R}_{1}$-hide-FOC PRON R $\mathrm{R}_{2}$-from
'Do hide me, from him.' (Teatro, 34)

The particle $r i$ has dubitative meaning.
(381) Asópe isene ri?
a-so=pe ise=ne ri
1SG-go=Q I=FUT PRCL
'Will I go?' (VLB, II, 58)

The clitic pe, usually accompanied by sentence final particles $k a$ used by men, or $k \dot{i}$ used by women, have a deliberative sense, i.e., they express the intention to undertake an action. Both, $k a$ and $k i$ may be used without $p e$. The future marker =ne may also be used with $k a$ or $k i$.
a. Asóne ki
a-so=ne $\quad \mathbf{k i}$
1SG-go=FUT DELIB ${ }_{F}$
'I have to go (I intend to go and have decided I will).' (FA, 139)
b. Aso ka
a-so ka
1SG-go=FUT DELIB ${ }_{M}$
'I have to go (I intend to go and have decided I will).' (FA, 139)
c. Aso umẽpe ki
a-so umẽ=pe ki
1SG NEG=DELIB PRCL $_{\mathbf{F}}$
'I have not to go (I intend not to go and have decided I will not).' (AA, 23)
d. Ajemĩkatupe ka
a-je-mím-katu=pe ka
1SG-RFLX-hide-well=DELIB PRCL $_{\mathbf{F}}$
'I shall hide myself properly.' (Teatro, 34)
e. Opomoikooje $\beta$ ikatupe
opo-mo-iko-je $\beta$ ir-katu=pe
1A.2PL-CAU-be-RFLX-again-well=DELIB
'I shall make you be well again.' (CC, 1, 17)

### 7.7.4 Illocutionary particles

Illocutionary particles, as the name suggests, are particles that change the illocutionary force of the utterance.

The clitic =pe indicates a question being attached to any constituent in the sentence (see Section [9.5).

A question of the type Is it the case that ... ?, i.e., without a WH-word, is formulated with the particle $\operatorname{ser} \tilde{a}$ :

'Is it the case that his second arm did not reach the place where the nails would go?' (Araújo, 62v)
b. Pisare serã ereiko arijãma mokajẽma?
pisare serã ere-iko arijãm-a mo-kajẽm-a
all.night PRCL 2SG-act chicken-REF CAUS-disappear-GER
'Is it the case that you act all night causing the chicken to disappear?' (Teatro, 32)

The exclamative illocutionary force is associated with some particles, such as ne Pi , which usually accompanies the gerund (384a) or the hortative (384b).
a. Ne? $\tilde{i}$ sekija ko?ite!
ne? $\tilde{\mathbf{i}}$ s-ekij-a ko?ite
EXCL R2-pull-GER finally
'Pull him! (Ah, may there finally be his pulling)' (VLB, II, 58)
b. NeRi toso!
ne?i t-o-so
EXCL HORT-3-go
'May he go!' (AA, 56v)

### 7.8 Case

'Cases mark dependent nouns for the type of relationship they bear to their heads. Traditionally, the term refers to inflectional marking' (Blake 2004, 1). TUP has case endings for expressing some grammatical functions, which are given below.

### 7.8.1 Locative-Dative cases

The locative is expressed by pe, which also expresses motion towards the referent (allative), and also marks the recipient or beneficiary (dative). Locative examples are given in (385). All variants are here glossed as LOC.
(385) a. Sepope
fe=po-pe
$1 \mathrm{SG}=$ hand-LOC
'In my hand(s).' (AT, 48)
b. Nejurarawaj tápe ne $=\varnothing$-jurarawaj ta $\beta$-pe
$2 \mathrm{SG}=\mathrm{R}_{1}$-lie village-LOC
'You lie in the village.' (DC, II, 84)
c. MaPeramaripe ase tipe oeni moini?
maPe-rama-ri=pe ase $\varnothing$-tí-pe o-eniे- $\varnothing$ mo-in-i
thing-FUT-PRCL=Q our R $_{1}$-nose-LOC CORF-saliva-REF CAUS-lay-NFOC
‘Why do you put your saliva on our nose?' (Araújo, 81v)

Body parts have their own locative case marker, $-i$.
(386)
$\begin{array}{lll}\text { a. } & \text { Oajuri } & \text { serekó } \beta o \\ \text { o-ajur-i } & \text { s-ereko- } \beta \text { o } \\ \text { CORF-neck-LOC } & \text { R }_{2} \text {-be-GER }\end{array}$
'Having them on the neck.' (Araújo, 12v)
b. Pitaj
pita-i
heel-LOC
'On the heel.' (AA, 41v)

This case ending also appears in many postpositions and adverbials with the ending already grammaticalized, i.e., as part of the word and no longer analyzable as a case suffix, as in wiri 'below' (AA, 41v), piri 'near, close to' (FA, 126), pukuj 'along (time and place)' (VLB, II, 130), and i $\beta$ iri 'along' (VLB, 1, 106).

Examples of -pe expressing motion towards a referent (allative) are given in (387).
a. Aso okipe
a-so ok-pe

1SG-go house-LOC
'I go home.' (Anch., Arte, 40)
b. Asopotar $\dot{i} \beta$ akipe
a-so-potar ißak-i-pe
1SG-go-want sky-EPEN-LOC
'I want to go to heaven.' (Araújo, 248)
c. Eike kori $\int$ enịãpe
e-ike kori $\int \mathrm{e}=\varnothing$-jỉã-pe
2SG.IMP today $1 \mathrm{SG}=\mathrm{R}$-heart-POSP
'Enter in my heart today.' (Poemas, 92)

Examples of -pe marking the beneficiary or the recipient are shown in (388).
a. Aime?ey Jerußape
a-i-me?en $\quad \int=e-r-u \beta-a-p e$
$1 \mathrm{SG}-\mathrm{R}_{2}$-give $1 \mathrm{SG}=\mathrm{R}_{1}$-father-REF-DAT
'I gave it to my father.' (AA, 42)
b. Aime?ey $a \beta a \quad$ supe
a-i-me?eŋ aßá- $\varnothing$ supe
1SG-R2-give person-REF POSP
'I gave it to the Indians.' (Teatro, 48)

'We are carriers of goods to him.' (Léry, 362)

Since the non-contiguous marker cannot receive case markers, a special form, supe, is used, which cannot be used with first or second person indexes. It is also used with RPs.
a. Erépe amõ kujã supe...?
ere-Pi=pe amõ kujã- $\varnothing$ supe
2SG-say=Q some woman-REF to
'Did you say to any woman. . .?' (Araújo, 104)
b. Pitan- $\tilde{i}$ supe ou
pitay-í supe o-ur
child-DIM to 3-come
'They came to the little baby.' (Poemas, 194)
c. Moru $\beta$ isa $\beta$ a tui $\beta$ aRe oje?en memẽ isupe
moru $\beta$ isa $\beta$-a tui $\beta$ aRe o-je?eŋ memẽ i-supe
chief-REF old 3-speak always $\mathrm{R}_{2}$-to
'The old chiefs always speak to him.' (Teatro, 36)
d. Tekoße me?eja isupe
t-eko $\beta \mathrm{e}-\varnothing$ meRen-a i-supe
$\mathrm{R}_{4}$-life-REF give-GER $\mathrm{R}_{2}$-to
'Giving life to him.' (Araújo, 39)

Free pronouns have a special dative form which consists of the pronominal morpheme and the suffix $-\beta e$ or $-\beta o$ :
a. ORa janéßo kori
o?a jane- $\beta$ o kori
3-born 1PL.INCL-DAT today
'He was born to us today.' (Poemas, 94)
b. Ijirõ ipo kori ise $\beta$ ene
i-jirõ ipo kori ise- $\beta \mathbf{e}=$ ne
$\mathrm{R}_{2}$-forgiveness certainly today I-DAT=FUT
'He will certainly forgive me today.' (Araújo, 92v)
c. Ajpo aßa jara jané $\beta$ e
ajpo a $\beta$ - $\varnothing$ jar-a jane- $\beta \mathbf{e}$
DEM man-REF carrier-REF 1PL.INCL-DAT
'These men are carrier of goods to us.' (Léry, Histoire, 354)
d. Ise aPe ã ape umwã nako peẽme
ise aRe ã a-Re umwã nako peẽ-me
I PRCL PRCL 1SG-say already PRCL 2PL-DAT
'Behold, it is I, I already said this to you.' (Araújo, 54v)

### 7.8.2 Perlative case

The perlative case, which is often called the diffuse locative in the TG literature (see e.g. Rodrigues 1996a; Jensen 1998a; Seki 2000) indicates a movement which goes 'through, across, along'.
(391) Kóßo
ko- $\beta$ o
slash-PERL
'Through the slash(es).' (AA, 42)

The perlative marker $-\beta o$ lends a plural reading to the word it attaches to ${ }^{8}$. This is illustrated in (392):
(392) a. Ipotasaßokatu
i-pota-sa- $\beta$ o-katu
R $_{2}$-want-NMLZ-PERL-truly
'Purely through his wish.' (Araújo, 53)
b. KaPaßo ajko
kaPa- $\beta \mathbf{o} \quad$ a-iko
forest-PERL 1SG-be.in.movement
'I go through the woods.' (VLB, II, 41)
c. Aso oki $\beta$ o
a-so ok- $\beta \mathbf{o}$
1SG-go house-PERL
'I go through the houses.' (FA, 7)

### 7.8.3 Translative case

The translative case indicates a change in state, which may be temporary.
(393)
a. Pitayamo seni
Maria jißape
pitaŋ-amo s-en-i Maria ji $\beta$ a-pe
child-TRSL $R_{2}$-sit-NFOC Maria arm-LOC
'As a child he is in Maria's arms.' (Poemas, 106)

[^107]b. Marã oikóßotepe ase Anaja remiawsußamo sekow?
marã o-eko- $\beta$ o-te=pe ase Anaga r-emiawsu $\beta$-amo s-eko-w how 3-be-GER-FOC=Q we devil $\mathrm{R}_{1}$-friend-TRSL $\mathrm{R}_{2}$-be-NFOC
'How are we/do we act like friends of the devil?' (Araújo, 26)

## Reference Phrase

Section 3.2 briefly introduced the LSRP. This section discusses the RP in TUP in detail, considering its operators and different types of modifiers.

### 8.1 Minimal RPs

A minimal RP in TUP may consist of a single lexical root, a proper noun, or a pronoun. A minimal RP consisting of only a noun is given in (394), with the LSRP of (394a) given in Figure 8.11.
(394) a. Tußa
t-u -a
$\mathrm{R}_{4}$-father-REF
'(A/the) Father(s).'
b. Jawara
jawar-a
jaguar-REF
'(A/the) jaguar(s).'

The presence of the relational morpheme preceding the lexical root in (394a) indicates that the root is possessed, even though a possessor is not specified in this case (see Section 4.3). When the root is unpossessed, the relational marker is absent, as in (394b). An RP does not require the referential morpheme, which only functions as an indicator that the lexical root is not predicative.


Figure 8.1: LSPR of a minimal RP

A minimal RP consisting of just a pronoun has the same structure as the examples in (394). In TUP, indefinite pronouns are RPs on their own, as in (395a), which is given as an answer to the question Will everything burn?
a. $\mathrm{Pa} \beta$
everything
'All / Everything.' (VLB, II, 130)
b. Ise

I
'I.' (cf. Teatro, 8)

## Demonstrative pronouns

There is often a synchronic or diachronic relationship between demonstratives and third person pronouns (Rijkhoff 2002, 174). Among TUP demonstratives, there is one, $a$ Pe, which often functions as a third person (independent) pronoun. In general, TUP demonstratives may function pronominally as arguments if combined either with the referential suffix (REF) or the nominalizer suffix $-\beta a$ ?e .

> a. Tupã ąe $\beta$ aRe rejtika tatape
> tupã- $\varnothing$ aPe- $\boldsymbol{\beta a P e} \quad$ r-ejtik-a $\quad \mathrm{t}$-ata=pe
> God-REF DEM-NMLZ R 2 -throw-GER R-fire-POSP
'(...) God throwing those in the fire.' (DC, I, 193)
a. Taßusupe wĩ?
ta $\beta$-usu=pe wi्i- $\varnothing$
village-AUG=Q DEM-REF
'Is this a city?' (Léry, Hist., 361)


Figure 8.2: Demonstrative in argument function
b. Jesus $\beta$ ojá $\quad$ a iko

Jesus $\varnothing$ - $\beta$ oja- $\varnothing \quad$ ã iko
Jesus R-disciple-REF PTCL DEM
'Behold, this is Jesus' disciple.' (Ar., Cat., 79)
c. $E \nless o^{\mathrm{w}}$ e nememira, kujã we!
$\mathbf{e} \beta \mathbf{o k}^{\mathbf{w}} \mathbf{e}$ ne= $\varnothing$-memir-a kujã we
DEM $2 \mathrm{SG}=\mathrm{R}_{1}$-son-REF woman VOC
‘Oh, woman, this is your son!' (Ar., Cat., 63)
d. $\mathrm{Ak}^{\mathrm{w}}$ ej komã! Emonã rako $\int$ ee $ß o k w e j a ~ r e r e k o w ~$
$a{ }^{\mathrm{w}}$ ej komã emonã rako $\int \mathrm{e}=\boldsymbol{e} \boldsymbol{\beta} \boldsymbol{\beta} \mathbf{k w e j}$-a r-ereko-w
DEM here INTJ in.fact 1SG=this-REF $\mathrm{R}_{1}$-treat-NFOC
'If only that (one) were here! Thus, in fact, I treat this (one).' (Anch, Dout. II, 93)
e. $A k^{\mathrm{w}}$ ej temõ our $\int$ epose mã! $\mathbf{a k}^{\mathbf{w}} \mathbf{e j}$ temõ o-ur $\int \mathrm{e}=\varnothing$-pose mã
DEM PTCL $_{\text {opt }} 3$-come $1 \mathrm{SG}=\mathrm{R}_{1}$-towards VOC
'If only that (one) came to me!' (Anch, Dout., 96)
f. Panga jape peroka?

جay-a ja=pe pe=r-ok-a
DEM-REF alike $=\mathrm{Q} 2 \mathrm{PL}=\mathrm{R}_{1}$-house-REF
'Are your houses like these?' (Léry, Hist., 363)
g. Iaya pai tupã nojpotari

Iay-a paßi tupã na-o-i-potar-i
this-REF father God NEG-3-R $\mathrm{R}_{2}$-want- $\mathrm{R}_{2}$
'God the father does not want this.' (Ar., Cat., 102v)
h. $\mathrm{A} \beta \mathrm{a}$ rapirape wĩ?
$A \beta a \quad r-a$ itira=pe wi- $-\varnothing$
person $\mathrm{R}_{1}$-son=Q this-REF
'Whose son is this?' (Teatro, 48)
i. Aßápe ajpoßaPe ojmomaran?
$A \beta a=$ pe ajpo- $\beta$ a?e o-i-momaran
person=Q DEM-NMLZ 3-R2-disobey
'Who disobeys that one?' (Araújo, 67)
j. IkoßaPe te!

Iko-ßaRe te
DEM-NMLZ INT
‘This one (not the other)!' (VLB, I, 130)

### 8.2 RP operators

The operators for each layer are associated with a specific semantic domain: the nuclear ${ }_{R}$ operators express qualitative features of the referent, the core ${ }_{R}$ operators express quantitative characteristics of the referent, and the RP-level operators locate the referent within the immediate common ground, which includes the discourse context and the physical environment (Van Valin Jr [2022, 36).

The operators of the RP in TUP are shown in Table (8. .l.).

| Level | Operator type |
| :---: | :---: |
| Nuclear $_{R}$ | Nominal tense |
| Core $_{R}$ | Number, negation |
| RP | Deixis |

Table 8.1: RP levels and their operators

In Section [3.2, it was mentioned that nominal aspect involves the count-mass distinction, which parallels the telic/atelic distinction in verbs (see Jackendotf 1992, 29), that is, whether the referent is an individual, part of an individual, or a set of individuals. TUP does not have classifiers, and the count-mass distinction is not marked morphologically, nor does it have any morphosyntactic implications.

The only nuclear operator $\left(\mathrm{NUC}_{\mathrm{R}}\right)$ of the TUP RP is nominal tense, which was
discussed in Section 8.3 .1 .

Since grammatical number is not a category of TUP nouns (see Section [.3.3), the only RP operator at the core level is negation.

### 8.2.0.1 Adnominal quantifiers

Previous versions of RRG treated quantifiers as operators. Currently, they are considered to be peripheral modifiers of the core. In TUP, some behave as lexical items as well as modifiers, e.g. jaßiPõ 'each', which can function as the head of an RP (B98a) and as a modifier (398b).
a. Pejaßißõ paßi Tupã karaiße $\beta \mathrm{e}$ moikow
pe $=\varnothing$-jaßiPõ paii Tupã karai $\beta \mathrm{e} \beta \mathrm{e}-\varnothing$ mo-iko-w
$2 \mathrm{PL}=\mathrm{R}_{1}$-each lord God angel-REF CAUS-be-NFOC
'God the lord assigned each of you an angel.' (Teatro, 52)
b. Raretewasu jaßißõ
?ar-ete-wasu jaßiקõ
day-INTS-AUG each
'Each Easter.' (Araújo, 59v)

RPs may be quantified by overt numerals or general quantifiers in lexical expressions such as three books, many dogs, few particles, every woman.

Ancient sources agree on the fact that TUP could count to five (Thevet 1953, 239, Staden 1557, 185, De Léry 1972, 251, d’Evreux 2014, 121), but there were numerals only for one, two, three and four, making it a nearly anumeric language (see Everett 2013, ch. 6). For the number five, the word po 'hand' was used (see 409b), and the possibility that this was introduced by the Portuguese cannot be excluded ${ }^{\text {II }}$.
(399) a. Amõ mokõj mosanga
amõ mokõj p.osay-a
other two $\quad R_{3}$-medicine-REF
'The other two medicines.' (DC, I, 223)

[^108]b. Mosapir tekokatu
mosapir t-eko-katu- $\varnothing$
three $\mathrm{R}_{3}$-life-good-REF
'The three virtues.' (DC, I, 153)

When employed without adjacent nouns, numerals do not take the relational marker:
a. Ererureta serã? Aani, mosapi jõ
ere-rur-eta serã aani mosapi jõ
2SG-bring-many PRCL no three only
'Did you bring many, by the way? No, only three.' (AT, 46-48)

TUP numerals may precede or follow the noun they modify (401]). This is a rare feature cross-linguistically, as shown by Dryer (2013). Of a sample consisting of 1154 languages, only 65 lack a dominant noun-numeral/numeral-noun order. Quantified RPs never combine with eta.
a. Ojepe kujã
ojepe kujã- $\varnothing$
one woman-REF
'One woman.' (AA, 9v)
b. Kujã ojepe
kujã- $\varnothing \quad$ ojepe
woman-REF one
'One woman.' (AA, 9v)
c. Mokõj $a p^{j} a \beta a$
mokõj ap ${ }^{j}$ a $\beta-a$
two male-REF
'Two men.' (AG, 9v)
d. $A p^{j} a \beta a \quad$ mokõj
ap ${ }^{j}$ а $\beta$-a mokõ $\mathbf{j}$
male-REF two
'Two men.' (AG, 9v)

When marked by REF, cardinals become ordinals or adverbs:
(402)

$$
\text { a. } \begin{array}{ll}
\text { Para mosapira pupe } \\
\text { Par-a } & \text { mosapir-a } \varnothing \text {-pupe } \\
\text { day-REF } & \text { three-REF } R_{1} \text {-in }
\end{array}
$$

'On the third day.' (Araújo, 15)
b. Imokõja
i-mokõj-a
R $_{2}$-two-REF
'His second time.' (VLB, II, 115)

When negated, numerals, despite not carrying the referential marker (REF), receive the non-predicative negation (see Section 6.5.2.3]):
(403) Namosapir ruã te tupã!
na-mosapir ruã te tupã- $\varnothing$
NEG-three NEG FOC God-REF
‘Not three Gods, instead!' (ADC, I, 193)

While one, two, and three are consistent within the TG family, 'four' seems less stable. There are different forms for 'four' attested in Tupinambá:
(404) Mokõmokõjsik
mokõ-mokõj-sik
two-two-in.total
‘Four.' (VLB, I, 154)
(405) Ojoirunik
four
'Four.' (Araújo, 77) ${ }^{\text {] }}$
(406) Ojoirũirũ ojo-irũ-irũ
RFLX-companion-companion
'A pair of pairs.' (VLB, I, 154) ${ }^{[1]}$
(407) Mojerunik
four
'Four.' (FA 14, Bettendorff, 48) ${ }^{\text {TI }}$

Araújo (1618b) uses two forms of the word as well as the Portuguese word:

[^109](408)
a. Ojoirunik tekosika $\beta$ a
ojoriunik t-eko-sika $\beta$-a
four $\quad R_{3}$-fact-last-REF
'The last facts are four.' (Araújo, 154v)
b. Quatro tekokatuitá

Quatro t-ekokatu-ita
four $\mathrm{R}_{3}$-virtue-column
'The cardinal virtues are four.' (Araújo, 10)

Numbers other than four require the word for hand, foot to be expressed. I do agree with Wolf Dietrich (personal communication) that this could well be a Jesuit invention, but since there are many different rare types of numeral systems cross-linguistically, it is more prudent to be categorical (see Hammarström 2010).

| a. Opá ko po | mosapir misã | Para | sikeme |  |
| :--- | :--- | :--- | :--- | :--- |
| Opa ko po- $\varnothing$ | mosapir misã- $\varnothing$ | Para- $\varnothing$ | sik-eme |  |
| all this hand-REF | three | toe-REF | day-REF | arrive-POSP |

'When the thirteenth day came.' (Araújo, 3) ${ }^{\text {I }}$
b. Sepo, $\quad$ epi, aßa po, ipi Para
$\int$ e= $\varnothing$-po $\quad \int$ e $=\varnothing$-pi $\quad$ a $\beta$ a- $\varnothing \quad \varnothing$-po $\quad$ i-pi $\quad$ Par-a
$1 \mathrm{SG}=\mathrm{R}_{1}$-hand $1 \mathrm{SG}=\mathrm{R}_{1}$-foot man-REF $\mathrm{R}_{1}$-hand-REF $\mathrm{R}_{2}$-foot day-REF
omemirawera $\quad k^{w} a \beta$ ire...
o-memira-wer-a $\quad \mathrm{k}^{\mathrm{w}} \mathrm{a} \beta$-ire
CORF-son-PST-REF pass-after
'Forty days after the birth of her son had passed....' (Araújo, 3v) ${ }^{6}$
c. Opa ko po jabi?õ Tupã supe
opa ko po- $\varnothing$ jabiPõ Tupã supe
all this hand-REF each God DAT
'One (for) each ten to God.' (Araújo, 78)

Some quantifiers may precede (410a) or follow (410c) the noun or the RP, like amo 'some, any, a certain, someone, other' (410) or opa( $\beta$ ) 'all, every' (41]):
a. Amõ aßa
amo $\mathrm{a} \beta \mathrm{a}$
other man
'Other men.' (Ar, 128)

[^110]$\begin{array}{llll}\text { b. Tupã } & \text { amõ kujãkatu } & \text { mojani } \\ \text { Tupã- } \varnothing & \text { amã } & \text { kujã-katu } & \\ \text { mojañ-i }\end{array}$
God-REF some woman-good make-NFOC
'God made a certain good woman. (God's making of a certain good woman)'
(Poemas, 86)
c. i-Supé oapisara amõ meRega
i-Jupé o-apisar-a amõ me?en-a
$\mathrm{R}_{2}$-POSP 3.COREF-similar-REF some give-GER
'Giving him someone similar to himself.' (Ar, 72)
a. Opa aßa jukaw
ора aßa- $\varnothing$ juka-w
loc man-REF kill-NFOC
'Killed all the men.' (AG, 54v)
b. $\begin{array}{ll}\text { Setekokuwaßa } & \text { opa } \\ \text { fe=t-ekokuwa } \beta \text {-a } & \text { opa }\end{array} \quad \begin{aligned} & \text { amokajem } \\ & \text { a-mo-kajem }\end{aligned}$
$1 \mathrm{SG}=\mathrm{R}_{2}$-knowledge-REF complete 1SG-CAUS-disappear
'I made all my understanding disappear.' (Poemas, 106)

With negation, the meaning of amõ is translated by 'no, none, any':

| a. | Naaruri |
| :--- | :--- |
| $\mathbf{n - a - r u r - i}$ | amõ parati |
| NEG-1SG-bring-NEG any parati |  |
|  | anati |

'I have not brought any parati (species of fish).' (Poemas, 154)

For a plural reading, amõ may be reduplicated:
a. Amõamõ santos
amõ-amõ santos
some-RED saints
'Some saints.' (Ar, 139 [1686])
b. Karaißa amõamõ iangajpa

Karaiß-a amõ-amõ i-angajpa
white.man-REF some-RED $R_{2}$-sin
'Many white men are sinners.' (Poesias, 55)

Some quantifiers can only follow the noun or pronoun:
(414)
a. Para jaßiPõ

Para jaßiº̃
day each
'Each day.' (VLB, I, 62)
b. Pejaßißõ paßi Tupã karaj $\beta$ e $\beta e$ moikow
pe=jaßiº̃ paPi Tupã- $\varnothing$ karaj $\beta$ е $\beta$ e- $\varnothing$ mo-eko-w
2PL=each holy.man God-REF angel-REF CAUS-be-NFOC
'For each one of you God the father delegated an angel.' (AT, 50)
c. Oporandupe Herodes maRe tetiruã rese isupe?
o-porandu=pe Herodes maRe tetiruã r-ese i-supe
3-ask-INT Herodes thing any $\quad R_{2}$-about R-DAT
‘Did Herodes ask him about anything?' (Araújo, 59)

Amõ can also be used pronominally and as the head of an RP, as in (415):
(415) Mokõj monaßora, iPekatuaßa kotiamõ, aße amõ iasu

Mokõj mona- $\beta$ or-a i-Rekatua $\beta$ a $\varnothing$-kotiamõ, a?e amõ i-asu
two steal-HAB.AG-REF $R_{2}$-right.side $\mathrm{R}_{2}$-POSP PRO DEM other $\mathrm{R}_{2}$-left.side
koti
$\varnothing$-koti
$\mathrm{R}_{1}$-POSP
'Two thieves, one on his right side and that other on his left.' (Araújo, 62v)

Some other quantifiers, like moßirjõ 'some, few, not many' only precede the noun:
(416) Moßirjõ ipo erimaPe kunumi kajemi
moßirjũ ipo erimaPe kunumí- $\varnothing$ kajem-i
few ADV once boy-REF disappear-NFOC
'Once, certainly, only a few boys died.' (AR, 157v)

### 8.2.0.2 Nominal negation

Negation in the RP denotes the absence of a referent, so it is no different from a quantifier which has a quantity of zero. TUP has a privative morpheme, -e?im, which is the RP negation operator at the core level. This is illustrated in (417):
a. Poropotare?ima poro-potar-e?im-a
ANTIP-want-PRIV-REF
'Lustlessness (lit. absence of desire for a person).' (Poemas, 132)
b. Ture?imawama
t-ur-e?im-wam-a
R $_{2}$-come-PRIV-FUT-REF
'Their future not-coming.' (Teatro, 14)
c. Sie?ima
si-e?im-a
mother-PRIV-REF
‘Orphan (lit. motherless).' (VLB, II, 59)

Figure (8.3) shows the representation of (417d):


Figure 8.3: Negation as a core-level operator of the RP

When the privative is negated, the meaning is non-negative, as in (418).
a. Najukae?imi
n-a-i-juka-e?im-i
NEG-1SG-R2-kill-PRIV-NEG
'I do not not kill him.' (FA, 34)
b. Naipotare?imi
n-a-i-potar-e?im-i
NEG-1SG-R2-want-PRIV-NEG
'It's not the case that I do not want it/him.' (AA, 34v)
c. Napeamotare?imipe oreru $\beta$ isa $\beta$ a?
n-pe-amotar-e?im-i=pe ore=r-u isa $\beta-\mathrm{a}$
NEG-2PL-hate-PRIV-NEG=Q 1PL.EXCL=R $\mathrm{R}_{1}$-chief-REF
'Don't you love (not not hate) your chief?' (Léry, 353)

Thus, the double negation or double privative construction has a positive meaning. In (419), the lexical root ekate?im 'avarice, ${ }^{\square}$ is negated by the privative, deriving $e k(o)$ ate ?ime ?im 'lack of avarice, freedom'. The only attested instance of the double privative is found in Bettendortt (1681, 62), given in (419), whose language is already distinct from the language described by Anchieta (1595) and Figueira (1687).
(419) Tupã miatãeteete, sekoate?ime?imeteete
tupã miatã-ete-ete s-ekoate?im-e?im-ete-ete
God strength-INTS-INTS R $\mathrm{R}_{1}$-avarice-PRIV-INTS-INTS
'The great power of God, his great freedom.' (Bettendorff, 62)

### 8.2.1 RP operators

Operators that modify the whole RP ground the referent in the 'real world'. These are related to locality and are similar to clause-level operators in the sentence. They mark the RP for deixis.

### 8.2.1.1 Demonstratives

Demonstratives are 'deictic expressions which are used to orient and focus the hearer's attention on objects or locations in the speech situation' (Diessel 1999, 2). TUP has three types of demonstratives according to the syntactic context (ibidem): (i) adnominal demonstratives (used as modifiers of nouns), (ii) pronominal demonstratives (used as independent pronouns, i.e., as arguments of verbs and adpositions, which are full RPs on their own) (see Section 8.11), (iii) adverbial demonstratives (verb modifiers which are used for the specification of location). This section will only deal with adnominal demonstratives.

TUP adnominal demonstratives encode the following semantic features: distance contrast (proximal, distal), person-orientation contrast (near the speaker, near the hearer, away from the speaker) (see Diessel 1999, 39), and visibility contrast (in sight or not in sight). A list of TUP demonstratives is given in Table 8.2.

[^111]|  | Near the speaker | Near the listener | Far from the speaker | Far from both |
| :---: | :---: | :---: | :---: | :---: |
| Visible | (i)ko | $\begin{aligned} & (\mathrm{e} \beta \mathrm{o}) \mathrm{k}^{\mathrm{w}} \mathrm{e}(\mathrm{j}), \\ & (\mathrm{e} \beta \mathrm{o}) \mathrm{wi}(\mathrm{y}), \\ & \mathrm{e}(\beta \mathrm{o}) \mathrm{w} \tilde{\mathrm{i}}, \\ & \text { emonã } \end{aligned}$ | kwe(j), mõ, erik |  |
| Non-visible | ã, aŋ |  | $\mathrm{ak}^{\mathrm{w}} \mathrm{e}(\mathrm{j})$, <br> amõ, <br> awã, <br> apo, <br> anõj | ajpo, <br> е $\beta$ аро, <br> ? e , <br> a?e <br> ako |

Table 8.2: Demonstratives in TUP

From the table above, it is possible to postulate an old, non-analyzable prefix indicating non-visibility, $a$-, and a prefix that indicates proximity to the listener, $e \beta o$ -

Demonstratives are always free roots that do not require derivational morphology. When followed by a noun, they form a tight constituent (RP), with the demonstrative modifying the noun directly. TUP demonstratives always precede the noun (see Dryer 1992b, 108).

Structurally, demonstratives are hosted in the RPIP (see Van Valin Jr 2005, 26-27), as shown in 420 and its representation in Figure 8.4:
(420) Iko?ara
iko Par-a
this world-REF
'This world.' (DC, I, 159)


Figure 8.4: A deixis operator
(421) a. Ikota $\beta$ a apamonana
iko ta $\beta$-a apamonan-a
this village confuse-GER
'Confusing this village.' (AT, 42)
b. Moßipe ase iko mosanga rarine?
mo $\beta \mathrm{i}=$ pe ase iko m.osang-a r-ar- $\mathrm{i}=$ ne
how.many=Q PRON this R4.medicine-REF R-take-NFOC=FUT
'How many times does one take this medicine?' (AD I, 208)
c. Ko aPe i $\beta$ aka janeremiep ${ }^{j} \mathrm{ak}^{\mathrm{w}}$ ama oimojay
ko aPe i $\beta$ ak-a jane=r-emi-ep ${ }^{j}$ ak-wam-a o-i-mojay
this that sky-REF 1PL.INCL=R1-RES-see-FUT-REF 3-R2-make
'This one made that sky we will see.' (Araújo, 86)
d. Marãtepe aŋ maPekatupaßẽ orowerekóne?
marã-te=pe ay maRe-katu-pabẽ oro-wereko=ne
how-FOC=Q DEM thing-INTS-all 1PL.EXCL-have=FUT
'But how do we do with these many riches?' (Araújo, 7)

When something is out of sight, either because it is far away or because it is an abstract entity, the demonstratives encoding non-visibility are used.
(422)
a. Taso ajpo jeRenga mopo
t-a-so ajpo je?ey-a mo-po(r)
HORT-1SG-go DEM word-REF CAUS-happen
'May I go fulfill these words.' (AT, 62)
b. Taso nepiri kori, ajpo tußisaßa waßo t-a-so ne= $\varnothing$-piri kori ajpo t-u $\quad$ isa $\beta$-a w-aßo HORT-1SG-go 2 SG=R $1_{1}$-near today DEM R ${ }^{3}$-chief-REF $3_{\text {CORF }}$.eat-GER
'May I go to you, today, in order to eat those leaders.' (AT, 68)
c. Ajpo jõpipo nerera?
ajpo jõ-pe-ipo ne=r-era
DEM only-Q-certainly $2 \mathrm{SG}=\mathrm{R}_{2}$-name
'Is your name only this indeed?'

### 8.3 Nominalizers

TUP is the only TG language with nine nominalizers, all of which 'have cognates in at least some TG languages' (Schleicher 1998, 136). Their functions often depend on the
transitivity of the root they combine with or on the semantics of the participants involved. Nominalized lexical roots, like any RP, may combine with casual suffixes, postpositions, or tense markers, and often require that their arguments, actor and undergoer, be encoded as the possessor.

## Relativizer

The nominalizer $-\beta a 2 e$, besides being used in equative predication (see Section [5.5), also nominalizes clauses, mostly with intransitive predicates ${ }^{8]}$. An example of a nominalized clause as a restrictive modifier is given in (423).

```
(423) i\betai opa i\betaitina i\betaaka swi oPari\betaaPe
```



```
earth-REF all clouds-REF sky-REF R R -from 3-fall-EPEN-NMLZ REL
iasoPiune
iaso?i-u=ne
cover-NFOC=FUT
'The earth, all the clouds that fall from the sky will cover it.' (Araújo, 7)
```

The clause nominalized by the relativizer, when it follows an RP in a detached position (PrDP), i.e., with a pause, this RP is the undergoer of the action in the nominalized predicate, as in (424), with subscripted indices. This RP must not be an independent pronoun of either the first or second person. This type, however, is uncommon in the texts, because $-\beta a 2 e$ is far more common with intransitive verbs.
(424) Pedro, ojukáßaPe

Pedro 3 -R $\mathrm{R}_{2}$-kill-NMLZ $\mathbf{R E L}$
'As for Pedro $_{\mathrm{i}}$, he $_{\mathrm{j}}$ is the one who kills him ${ }_{\mathrm{i}}$.' (AA, 30v)
$-\beta a 2 e$ can appear in the ECS, either related to a core argument (425) or as the argument of a postposition (426):

| (425) | Nojaßianajpe | omendarißare | Tupã reko | ojopotá? |
| :---: | :---: | :---: | :---: | :---: |
|  | n-o-i-a $\beta$ i-aŋajpa $\beta=$ pe | o-mensar- $\beta$ aPe | Tupã r-eko | o-jo-pota |
|  | NEG-3-R2-infring | 3-marry-NMLZ | God $\mathrm{R}_{1}$-la | 3-RECP |

[^112]'Don't those who are married commit sins in desiring each other?' (DC, I, 228)
$-\beta a$ Pe combines with nominal tense, as in (426):

```
a. Serepiramo [omanõßaPep wera ri]
    \inte=r-epi-ramo o-manõ-\betaaRe-pwer-a }\quad\varnothing\mathrm{ -ri
    1SG=R1-price-TRSL 3-die-NMLZ REL
    \inteakire?imamo
    \inte= }\varnothing\mathrm{ -akir-e?im-aßo
    1SG=R 1-soften-PRIV-GER
```

    'Having compassion for the one who died as my saviour.' (AC., 86)
    b. OmanõßaPep ${ }^{w}$ era swi
o-manõ- $\beta$ aRe-p ${ }^{\mathrm{w}}$ er-a $\quad \varnothing$-swi
3-die-NMLZ REL $^{\text {-PST-REF }} \mathrm{R}_{1}$-from
'From those who have died.' (DC, I, 141)
c. Ako omanõßaPerame?ima $\quad$ Berame?i
ako o-manõ- aPe-ram-e?im-a $\quad$ Berame?i
that 3 -die-NMLZ $\mathbf{R E L}^{\text {-FUT-NEG-REF seem }}$
'He seems to be that one, who will not die.' (Ar., Cat., 155)

The possessive RP in predicative function can also be nominalized by $-\beta a$ e, but in this case the possessed RP combines with relationals in order to indicate the contiguity or non-contiguity with a possessor, or the absence thereof.

'The baptized who have sinned will also be thrown on the devil's fire.' (DC, I, 131)
b. Waisara serißaRe
waisara s-er- $\beta \mathbf{a P e}$
Guaishara $\mathrm{R}_{2}$-name-NMLZ REL $^{\text {Re }}$
'The one who has the name Guaishara.' (Teatro, 8)

See Section 10.3.2.1 for further discussion regarding $\beta a$ ape.

## Agentive nominalizer

Transitive predicates can be nominalized by -sar, a suffix that requires the element functioning as a modifier to be interpreted as the undergoer of the nominalized predicate. This is clear in (428]a), for example, where the modifier 'of you/your' is the undergoer of 'teach' ('teaches you').
a. PemoResara
pe= $\varnothing$-mo?e-sar-a
$2 \mathrm{PL}=\mathrm{R}_{1}$-teach-NMLZ $\mathbf{Z G G}_{\mathbf{A G}}-$ REF
'Your teacher / the one who teaches you.' (Teatro, 190)
b. Jane?ay-a
jukasara
jane $=\varnothing$ - -aya juka-sar-a
1PL.INCL= $\mathrm{R}_{1}$-soul-REF kill-NMLZ $\mathbf{Z A G}_{\mathbf{A G}}$-REF
'Killer of our soul.' (Poemas, 90)

## Patient nominalizer

Transitive predicates can also be nominalized by -pir and designate the undergoer of an event.
a. Ijukapira
i-juka-pir-a
$\mathrm{R}_{2}$-kill-NMLZ $\mathbf{P A T}$-REF
'(The) one who is/must be killed.' (AA, 19v)
$\begin{array}{lll}\text { b. Tapeso } & \text { pejekosupa } & \text { ipotaripira } \\ \text { t-pe-so } & \text { pe-je-ekosu } \beta-\mathrm{a} & \text { i-potar-pir-a }\end{array}$
HORT-2SG.PL-go 2SG.PL-RFLX-be-delight-GER R 2 -want-NMLZ $_{\text {PAT }}$-REF
ri
$\varnothing$-ri
$\mathrm{R}_{1}$-POSP
'May you go, rejoicing with what is desired.' (Teatro, 58)
c. Aßamona morapitjawera repiramo a $\beta$ a-mona- $\varnothing$ mor-apiti-sar-wer-a r-epi-ramo person-thief-REF ANTIP-slaughter-NMLZ-PST-REF R $1_{1}$-pay-TRSL
muneokipe imone $\beta$ ipirwera
mune-ok-pe i-mone $\beta$-pir-wer-a
prison-house-LOC $\mathrm{R}_{2}$-arrest-NMLZ $\mathbf{P A T}^{\text {PAT }}$-PST-REF
'A thief (who was) put in prison as payment for men's slaughter.' (Araújo, 59v)

## Resultative nominalizer

The prefix emi- - the only prefix among nominalizers - is functionally similar to the nominalizer pir. It 'derives from a transitive predicate a noun which is the undergoer of the action from which it is derived.' (Schleicher 1998, 136). It requires the undergoer of the predicate to be interpreted as a possessed noun: the literal translation of (431a) would be 'killed thing of/by the jaguar'. Some nominals derived through emi- probably had been lexicalized so that the prefix in question was not perceived as a derivation, such as the examples in (4301). Other instances, such as those in (431), are derived though prefixation.
a. Jawara remijukap ${ }^{\mathrm{w}}$ era
jawar-a r-emi-juka-p ${ }^{\text {w }}$ er-a
jaguar-REF $\mathrm{R}_{1}$-RES-kill-PST-REF
'What the jaguar killed / the killed by the jaguar.' (Araújo, 107v)
b. Tojemojãyneremimotara
t-o-je-mojãgne=r-emi-potar-a
HORT-3-RFLX-make 2SG=R1-RES-want-REF
'May your will (what is desired) be made.' (Araújo, 13v)
c. $2 \dot{i} \beta a \quad$ Tupã remipisiriõ
$1 \mathrm{i} \beta \mathrm{a}-\varnothing$ Tupã r-emi-pisirõ- $\varnothing$
fruit-REF God R $_{1}$-RES-prohibit-REF
‘God's prohibited fruit (that God prohibited).' (Araújo, 84)

Although some of the examples containing emi- have been translated into English
using the passive voice, it is not a syntactic passive. Its addition to a stem is a lexical operation.

There seems to be no functional difference between mi- and -pir, although this matter requires further investigation. While the Tupinambá treebank available on UD (Ferraz (ierardi 2022) is yet to reach a number of sentences that would be necessary for a quantitative analysis of the Tupinambá corpus, it is possible to note that many lexical roots in fact combine with both of these nominalizers without a difference in meaning, even though certain nuances of meaning seem to be recognizable as Jesuits attempted to translate Christian ideas. Table (8.3) shows some lexical roots attested in combination with both forms, emiand -pir.

| Root | emi- | Meaning | Attestetation | -pir | Attestetation |
| :---: | :---: | :---: | :---: | :---: | :---: |
| juka | kill | emi-juka | Ar., 107v | juka-pir | Figueira, 8, 32 |
| moete | honor | emi-moete | VLB, II, 87 | moete-pir | VLB, II, 87 |
| iko | be, act | emi-(r)eko | Araújo, 96 | serekopir | Figueira, 107 |
| $e p^{j} a k$ | see | ep ${ }^{\text {jak-(i) }}$ ) ${ }^{\text {ir }}$ | Léry, 346 | emi-ep ${ }^{\text {j }}$ ak | Ar., 61 |
| moja?ok | divide | emi.moja?ok | Ar., 162 | mojaPok-(i)-pir | Ar., 78v |

Table 8.3: Lexical roots with emi- and -pir

General nominalizer
The general nominalizer -sa $\beta$ combines with active roots, indicating how the event happens, the instrument through which the event is accomplished, the goal of the event, or even the circumstances under which the event takes place. Examples are given in (432]).

```
a. MaPe rese imaRenwasa \(\beta\) a maPe r-ese i-maPenwar-sa \(\boldsymbol{\beta}\)-a thing \(R_{1}\)-with \(\mathrm{R}_{1}\)-remember-NMLZ-REF
'The memory of things (lit. way of remembering things).' (DC, I, 152)
b. ImaRe potasa \(\beta\) a
i-maPe potar-sa \(\beta\)-a
\(\mathrm{R}_{2}\)-thing want-NMLZ-REF
'Desire of its things.' (DC, I, 152)
c. Aseka jepe mitasaßa amõ witekoßo
a-s-eka jepe m.itar-sa \(\beta\)-a amõ wi-t-eko- \(\beta\) o 1SG-R2-search one stay.R3-NMLZ-REF other 1SG-EPEN-be-GER
```

'I am looking for an inn (lit. place of staying).' (Teatro, 128)
d. $\int \mathrm{e}$ nemoiko $\beta$ osa $\beta$ a
fe ne= $\varnothing$-mo-iko- $\beta$ o-sa $\beta$-a
I $2 \mathrm{SG}=\mathrm{R}_{1}$-CAUS-be-GER-NMLZ-REF
'I am the cause of your action.' (Teatro, 176)
e. Seta jẽ iPasaßusu
s-eta jẽ îa-sa $\beta$-usu-REF
$\mathrm{R}_{2}$-many already take.water-NMLZ-AUG-REF
'The bows are many already (lit. instrument of taking water).' (Teatro, 26)

## Habitual agent

The habitual agent is expressed by - $\beta o r$, as exemplified in (433). This suffix can express a habit (433a), or a constant state (433b).

```
a. Aŋa ja ajajpaßora ajuka aŋa ja aŋajpa \(\beta\) - \(\beta\) or-a a-i-juka this like sin-HAB.AG-REF \(1 \mathrm{SG}-\mathrm{R}_{2}\)-kill
'As (with) these, I kill the sinners.' (Poemas, 94)
b. Eremomuejra maraPaßora
ere-mo-muejra \(\beta\) maraPa- \(\beta\) or-a
2SG-CAU-heal sick-HAB.AG-REF
'You healed the sick.' (Poemas, 122)
```

Gerund

For the gerund, see Section [0.2.3.

### 8.4 Modifier Phrase

Lexical roots, demonstratives, and nominalizers may modify an RP as well as a sentence with a PrCS. Like the RP and the predicative PP, the MP has a nucleus and a core, but no operators. MPs are peripheral modifiers at the nuclear level (degree modifiers) and the core level (manner adverbial modifiers).

The simplest type of modification is composition (Rodrigues 1951a). The morphophonemic processes present in composition (see 436) are clearly distinct from that of appos-
ition/juxtaposition (see Section 8.5). While the juxtaposition of lexemes for a possessive construction requires the mediation of a relational morpheme $\left(R_{1}\right)$ to signal dependency, $a$ compound does not require a relational and the REF appears only once, with its scope over the entire compound, as in (434 and (254). As shown in Figure (8.5), the lexical modifier is in the nuclear periphery of the $\mathrm{NUC}_{\mathrm{R}}$. Figure (8.6) represents (434d), where a modified lexical root modifies another lexical root.
a. Aoßuna
ao $\beta$-un-a
clothes-black-REF
'Black clothe(s).' (VLB, II, 86)
b. Rayaporaya

Raya-poray-a
soul-beauty-REF
'Beautiful soul.' (Poemas, 140)
c. Piraakãpuku
pira-aka(y)-puku- $\varnothing$
fish-head-long
'Long headed fish.' (VLB, I, 50) (Bagre pinnimaculatus)
d. Pirajurumemeka
pira-juru-memek-a
fish-mouth-soft-REF
'Jamaica weakfish.' (Marcgrave, 149)


Figure 8.5: Modification by composition in TUP


Figure 8.6: Recursive modification by composition in TUP

The following example has an action-word as modifier.
a. Pira $\beta \mathrm{e} \beta \mathrm{e}$
pira $\beta$ e $\beta$ e- $\varnothing$
fish-fly-REF
'Flying fish.' (Marcgrave, 162; VLB, II, 70; 147)
b. Tejujan
teju-jan-a
lizzard-run-REF
'Running lizard.' (Marcgrave, 238)

In compound modification, as in (434), the semantic head of the new lexeme is always the leftmost element, even if the composition is made up of more than two elements, as in (434c).
(436)

```
Pisaipe \(\beta\) a
pisa-i \((\beta a)-p e \beta-a\)
fish.net-grip-flat-REF
'Flat-grip-fishnet.' (VLB, II, 99)
```

Most compositions are like (434a) and (436) in that the head of the compound is the leftmost element. Nonetheless, there are 'compounds' that seem to be headed by the rightmost element, as in (437). These are probably cases of grammaticized possessive expressions which lost the contiguity marker. Such cases are called 'determinative compounds' by

Rodrigues (1951a). Note that the contiguity marker $\left(\mathrm{R}_{1}\right)$ is missing, for example, in (437a) (r-up ${ }^{j}$ ara). The translation given to (437d) is 'fish oil'. This translation would be correct if the contiguity marker were present: pira-REF $\mathrm{R}_{1}$-jani-REF. One would expect its meaning to be 'oily fish' if no grammaticalization process were involved.
a. Ajuruju $\beta$ up ${ }^{j}$ ar
ajuru-ju $\beta$-up ${ }^{\text {j }}$ ar
parrot-yellow-enemy
'Yellow parrot enemy (Frenchman).' (cf. AT, 44) ${ }^{\text {D }}$
b. Ataeniuru
at-eni-uru
fire-light-container
'Fire light container (lamp).' (VLB, I, 65)
c. Pirajani
pira-jani
fish-oil
'Fish oil / oil of fish.' (VLB, I, 49)

Further examples are given in 438:
(438) a. UPußuru
uPu $\beta$-uru
arrow-case
‘Arrow case.' (VLB, I, 49)
b. Wiraje Peyatu
wira-je?ey-katu
bird-sing-beautiful
'Saffron finch (Sicalis flaveola).' (Marcgrave, 211)
c. Meni

Men-si- $\varnothing$
husband-mother-REF
'Mother-in-law.'四 (Araújo, 115)

[^113]

Figure 8.7: RP possessor in the RPIP

RPs containing a dependent noun which modifies the head noun may have different semantic functions besides that of possessor. (439) exemplifies this fact with agent (a), theme (b), patient (c), but other roles may also be encoded. Since these are possessive constructions, the possessor is in the RPIP, as shown in Figure 8.7 representing (439b).
a. Sumarã pußama
sumarã- $\varnothing \quad \varnothing$-pu?ama-REF
enemy-REF R-assalt- $\varnothing$
'The enemy's assault.' (Poemas, 184)
b. $\mathrm{Ta} \beta \mathrm{a}$ monika
taß-a $\quad \varnothing$-monik-a
village-REF R-destroy-REF
'The village's destruction.' (Teatro, 12)
c. Christo rawsu $\beta$ a

Christo r-awsu $\beta$-a
Christ $\mathrm{R}_{1}$-love-REF
'The love of Christ (one’s love of Christ)' (Araújo, 161v)

Depending on the transitivity of a root, it is possible to embed an RP containing an RPIP in another RP with its own RPIP. The verb 'to love' takes two arguments, so the nominalized phrase 'João's love of Pedro' Joao Pedro rawsußa consists of two genitives [[the love [of João]] [of Pedro]]. In this case, the noun closest to the rightmost $\mathrm{NUC}_{\mathrm{R}}$ is always the argument which is lower on the actor-undergoer hierarchy (see Figure B.16), in

[^114]parallel to the SOV orders of cores in clauses. The representation of (440) is given in Figure 8.8 .
(440) João Pedro sawsu $\beta$

João Pedro s-awsu $\beta$
João Pedro R-love-REF
‘João loves Pedro (lit. João's love of/for Pedro).' (AA, 16v)


Figure 8.8: Embedded possessor RP

### 8.4.0.1 Adverbial demonstratives

Demonstratives may function as adverbs, as in (441).
a. Aso iko!
a-so iko
1sg-go DEM
‘Behold, I go!' (Anch., Arte, 21v)
b. Iesus Nazareno iko orosekar Iesus Nazareno iko oro=s-ekar Jesus of.Nazareth DEM 1PL ${ }_{\text {EXCL }}=$ R-search
'Behold, we are searching Jesus of Nazareth.' (Ar., Cat., 54v)
c. Ko s-eko-w ko
ko s-eko-w ko
DEM R-be-NFOC DEM
'Behold, it/(s)he is here.' (VLB, I, 109)
d. $E \beta$ ok ${ }^{\mathrm{w}}$ e r-upi e-kuwa $\beta$ !
$\mathbf{e} \beta \mathbf{o k}^{\mathbf{w}} \mathbf{e}$ r-upi e-kuwa $\beta$
DEM REL-POSP 2sg.imp-pass
'Pass through here!' (VLB, II, 81)
e. Ajpo jẽ!

DEM PRCL
‘(T)here it is!’ (Léry, Hist., 353)

A noun can also be formed through the derivation of more than one morpheme. There are many such morphemes, which often become lexicalized. The following examples show the suffix -usu 'big' (442) and -pwera 'nominal past' (324):
(442) igarusu
igar-usu
canoe-big
'Ship (big canoe).' (see ADC, I, 212)

In the case of lexicalization, the composition forms a new noun, so that there is no modifier, but nominal tenses are operators functioning at the RP level, as can be seen from (443) represented in Figure 8.9:
(443) Rekop ${ }^{\mathrm{w}}$ era
r-eko-p ${ }^{\text {w }}$ er-a
$\mathrm{R}_{1}$-law-PAST $\mathrm{N}_{\mathrm{N}}$-REF
'The old law.' (Poemas, 104)


Figure 8.9: Nominal tense operator
(444)
a. $A^{2} k^{W} a \beta \quad$ maPe
$a-i-k^{\mathrm{w}} \mathrm{a} \beta \quad$ maRe- $\varnothing$
1SG-R 2 -know thing-REF
'I know things.' (Fig., 122)

### 8.5 Attributive possession

Possessive relations involve two entities: the possessor (dependent) and the possessed entity (head). Although there are three types of expression of possession (McGregor [2009, 2), this section will only deal with attributive possession, in which the possessed and the possessor form an RP, as in Dave's car or his car (Chappell and McGregor 1996).

Tupinambá nouns are divided into non-possessed and possessed. Non-possessed nouns include, for example, animals, trees, and non-cultivated plants. Possessed nouns include, for example, parts of a whole, attributes and members of a system of relations, tools, and cultivated plants. Possessed nouns are further divided into two categories (Chappell and McGregor 1996). The first category is that of inalienable nouns, or obligatorily possessed nouns, which require an overt statement since one of the elements, the head, is semantically incomplete, because it is relational (see Lehmann 1985). In the expression John's father, for example, 'father' would obligatorily require an adnominal possessor in TUP. The second category is that of alienable nouns, which are not obligatorily possessed nouns and may stand on their own without the specification of a possessor, such as 'shoe' in Paul's shoe (see Chappell and McGregor 11996; Velázquez-Castillo 1996). Non-possessed nouns cannot occur in possessive constructions, mainly because the cultural reality reflected in the grammar ${ }^{[\square]}$ does not allow this.

Inalienable and alienable possession show no structural differences. They are formed by a possessor either expressed by an independently coded noun (445]a,b) or by a pronominal proclitic (Set II in Table 4.3) (445c,d) always followed by the possessed noun. In both cases, the head is obligatorily marked by the relational morpheme(R). In the following examples (445a, b and c), the heads are inalienably possessed, while in (445d) the head is alienably possessed. This is atypical in terms of the parameters in Nichols (1988), according to which inalienability is associated with head marking or non-marking, whilst alienability is typically associated with dependent marking.

[^115]a. Wira raßa
wira- $\varnothing \quad \mathrm{r}-\mathrm{a} \beta-\mathrm{a}$
bird-REF $\mathrm{R}_{1}$-feather-REF
'Feather of bird / bird's feather.' (FA, 71)
b. Tupã raira

Tupã r-air-a
God R-son-REF
'Son of God.' (AT, 242)
c. Neru $\beta \mathrm{a}$
ne $=\mathrm{r}-\mathrm{u} \beta-\mathrm{a}$
2SG=R-father-REF
'Your father.' (Ar., Cat., 100v)
d. Sepina
$\int \mathrm{e}=\varnothing$-pina- $\varnothing$
1SG=R-fish.hook-REF
'My fishhook.' (Anch., P, 152)

Compare the examples in 446: 'God the son (one of the persons of the trinity)' is a classification in the terminology of Chappell and McGregor (1989) ${ }^{[2]}$. In (446a), the $\mathrm{R} t$ - indicates that the dependent is generic and human, while in (446b) $r$ - indicates the contiguity of the dependent and the head noun (see Cabral and da Costa 2004, 8). The order of constituents in (446) is also relevant. In (446a) the element on the left side is the head, while in (446b) it is the element on the right:
a. Tupã taira

Tupã t-air-a
God R-son-REF
'God the son.' (ADC I, 134)
b. Tupã raira

Tupã r-air-a
God R-son-REF
'Son of God.' (AT, 242).

Semantically, nouns in a possessive relation are referential, while nouns used to classify refer to a type or class in a classificatory construction. The referent noun in this

[^116]construction is the head noun. One may also note that while the possessor in a possessive relation may be realized as a pronoun, this is impossible for classifying nouns because they lack referentiality.

The examples in (445) show that a possessive construction is either of the type ([NREF R- $\overbrace{\mathrm{N}-\mathrm{REF}}^{\text {head }}$ or [proclitic=R- $\overbrace{\mathrm{N}-\mathrm{REF}}^{\text {head }}]$. It is also possible to embed an RP inside another RP. The structure of (447b) is $[\underbrace{[\mathrm{N}-\mathrm{REF} R-\mathrm{N}-\mathrm{REF}}_{R P}] \mathrm{R}$ - $\overbrace{\mathrm{N}-\mathrm{REF}}^{\text {head }}]$. The same expansion can be used to generate (447c). The TUP corpus, however, does not attest to an embedding higher than depth 3, similar to (447b) (see Verhoeven and Lehmann 2018), but apparently there could be, though unnatural, a longer RP of this kind.
a. $A \beta$ á raira aßa-REF r-air-a man-REF $\mathrm{R}_{1}$-Son-REF 'The man's son.' (Teatro, 50)
b. Aßá raira rura
aßa-REF $R_{1}$-air-a $\quad R_{1}$-ur-a
man-REF R-son-REF R-come-REF
'The man's son's' arrival.' (not attested)
$\begin{array}{llll}\text { c. } \begin{array}{lll}\text { A } \beta \text { á } & \text { raira } & \text { rura } \\ \text { aßa-REF } & \text { r-air-a } & \text { r-ur-a }\end{array} & \varnothing \text { P-Para } \\ & \end{array}$
man-REF $\mathrm{R}_{1}$-son-REF $\mathrm{R}_{1}$-come-REF $\mathrm{R}_{1}$-day-REF
'The day of the man's son's arrival.' (not attested)

Mbyá Guaraní, a language related to TUP which has the same structure of possessive constructions, attests an example (Vieira [2018, 182) which, if translated into TUP, would yield (448) (I see no reason why this would be ungrammatical):
(448) Mbyá Guaraní (Tupí-Guaraní)

Ararußa irũ raira roka
Arar-ußa $\varnothing$-irũ- $\quad$ r-aira r-oka
Ara R -father $\mathrm{R}_{1}$-friend $\mathrm{R}_{1}$-son $\mathrm{R}_{1}$-house
'Ara's father's friend's son's house." (Vieira 2018, 182)

As is common in many languages (Bickel and Nichols 2013), non-possessed nouns can be made grammatically (not semantically) possessed through the apposition of an abstract generic noun which is (can be) marked for possession. In TUP, animal names cannot take the usual head-marked possessive inflection, i.e., one cannot possess a cow unless the word ejm $\beta a \beta$ 'domestic animal, pet, breeding animal' is employed:
a. *SetapiPira
fe=tapiPir-a
1SG=cow-REF
'?'
b. $\int \operatorname{erejm} \beta \mathrm{a} \beta \mathrm{a}$ tapiPira
$\mathrm{e}=\mathrm{r}-\mathrm{ejm} \beta \mathrm{a} \beta \mathrm{a}$ tapiPir-a
1SG=R-pet-REF cow-REF
'My (domestic animal) cow.' (AG, 14v)

## Information Structure

### 9.1 Introduction

For ease of exposition, some typeface conventions are employed to represent properties of information structures. If a word (or phrase) bears the accent/intonation responsible for conveying focus, it is marked in SMALL CAPS; topic is signalized by boldface. For example, in the English Q/A pair in (4501), dog and Kim bear the A and B accents (Jackendoff 1972), respectively, and the focus the dog (with the A-accent) conveys is projected to chased the dog.
(450) Q: What about Kim? What did Kim do?

A: Kim chased the dog.

In (450]), the presupposition is that Kim is available as a topic for comment, i.e., the assertion that Kim chased the dog (see Lambrecht [1994, 226).

Information structure can be formally manifested in aspects of prosody, morphology (in the form of special grammatical markers), syntax (in particular nominal), word or constituent order (through displacement), clefting, through the use of complex grammatical constructions, and in certain choices between related lexical items. The types of texts which make up the TUP corpus limit the extent to which information structure can be described.

Prosodic features cannot, for obvious reasons, be recovered. The homogeneity of the texts, mostly consisting of indoctrination, poses a challenge for understanding information structure through word order in TUP. For instance, Anchieta's theater plays and poems need to be approached carefully since they are rather artificial in their word order, and most of what is left are texts of catechetical nature. For this reason, information structure in TUP is mostly perceived through morphology and, to a limited extent, through word order variation. ${ }^{\text {II }}$

The analysis proposed in this chapter is based on the theory of information structure developed by Lambrecht (1986, 1987, 1994, 2000). In this approach, three categories are fundamental: (i) PRESUPPOSITION and ASSERTION, relating to the structuring of propositions into portions which a speaker assumes an addressee already knows or does not yet know (see Lambrecht [1994, 52); (ii) IDENTIFIABILITY and ACTIVATION, relating to a speaker's assumptions about the status of the mental representations of discourse referents in the addressee's mind at the time of an utterance (see Van Valin Jr and LaPolla I1997, 199-201); and (iii) TOPIC and FOCUS, relating to a speaker's assessment of the relative predictability vs. unpredictability of the relations between propositions and their elements in given discourse situations (see Lambrecht [1994, 6).

RRG posits two basic types of focus structure:

- Predicate focus structure: Sentence construction expressing a pragmatically structured proposition in which the PSA is a topic (hence within the presupposition) and in which the predicate expresses new information about this topic. The focus domain is the predicate phrase (or part of it). ${ }^{\text {D. }}$
- Sentence focus structure: Sentence construction formally marked as expressing a pragmatically structured proposition in which both the PSA and the predicate are in focus. The focus domain is the sentence, minus any topical non-PSA arguments

[^117]
### 9.2 Predicate focus

Some examples of predicate focus are given below. Example (451]) is an answer to the question 'What did he do before dying?' The referent of 'he' is available as a topic for comment, which is the new information (focus) provided by the assertion 'ate with his disciples'. The focus domain is the predicate plus the remaining post-verbal core constituents. Figure 9.1 represents 451, showing the focus projection, where the triangle represents the actual focus domain, the part of the sentence that is actually in focus, and the dotted line represents the potential focus domain, i.e., the syntactic domain in which focus elements may occur.

| OmaPePu | oemimoPeeta | piri |
| :--- | :--- | :--- |
| o-maPe-Pu | o-emi-moPe-eta- $\varnothing$ | piri |

3-thing-ingest $3_{\text {Corf- }}$-NMLZ-disciple-many-REF together
'He ate together with his disciples.' (Araújo, 52)


Figure 9.1: Predicate focus in TUP

### 9.3 Sentence focus

Sentence focus constructions have an entire sentence as a focus domain. Unlike in predicate focus, there is no presupposed topic; that is, the subject or referent in a sentence is not the
topic, as new participants are introduced and the proposition expressed is, therefore, not a comment on the introduced topic (see Lambrecht 2000). Put another way, the referent and the proposition do not have a topic-comment relationship, since the utterance is not about the coded referent. The referents introduced are all new information, just like anything else that may follow. Sentence focus constructions further lack pragmatic presuppositions, except for the non-distinctive presuppositions common in all focus types (Van Valin Jr and LaPolla 1997, 207).

Sentence focus is mainly found in presentational constructions such as narrative openings like Once upon a time ... and There came a man . . . , and most often occurs with intransitive verbs (Lambrecht 2000, 617).

Tupinambá does not seem to have a special presentational construction, as far as attested by the texts, so we cannot know which forms were typically used to begin a story, but we can imagine a context in which sentence focus would occur using concrete examples. If example (452) occurred in a dialogue as an answer to the question What is happening there?, there would be no pragmatic presupposition in the above information structure as the assertion and focus are identical and the focus domain is on the whole clause.

| OPar so?o | munépe |
| :---: | :---: |
| o-Par s-o?o- $\varnothing$ | mune-pe |
| 3-fall R4-flesh-REF | ap-LOC |
| 'Hunt fell into the | p/bag.' (VLB, I, 63) |

Example 452 does not have a topic. Its information structure is shown below:

Sentence: o?ar so?o munépe
Presupposition: none
Assertion: oPar so?o munépe
Focus: o?ar so?o munépe
Focus domain: CLAUSE

Other examples in which topics are not available are so-called thetic/existential sentences, such as There is somebody at the door. This sentence carries all new information
and thus there is no topic, as in (453).

```
(453) Noikoj a\betaa nejaße
    na-o-i-ko-i a\betaa- }\quad\mathrm{ ne= }\varnothing\mathrm{ -jaße
    NEG-3-R2-NEG person-REF 2SG=R1-like
    'There isn't a person like you.'(Poemas, 140)
```


### 9.4 Focus positions in the syntax

In this section we look at the $\operatorname{PrDP}$, the $\operatorname{PrCS}$ and the pre-verbal slot as positions of focus or not.

### 9.4.1 The Pre-Detached Position

The PrDP (see Section 6.1) is a position outside the potential focus domain. In (454), for example, the RP ise 'I' is a clause-external topic in the $\operatorname{PrDP}$ and $a$ - ' 1 SG ' is the resumptive index in the clause. The potential focus domain is the clause aporomoinó ka?u rese jepi ' I make people be in drunkenness always' and the actual focus domain in this case coincides with the predication poromoiŋó kạu rese jept ${ }^{[B]}$. The dislocated topicalized pronoun would otherwise be in the ECS.

```
(454) Ise ko, kaPu rese aporomoijo jepi
    ise ko kaPu-\varnothing r-ese a-poro-mo-iko jepi
```

    I behold drunkenness-REF \(\mathrm{R}_{1}\)-POSP 1SG-ANTIP-CAUS-be always
    'As for me, I make people permanently live in drunkenness.' (Teatro, 136)
    Another example of a (dislocated) topic in the PrDP is given in (455).
(455) a. ARe rako, iajajpa
aRe rako i-aŋajpa $\beta$
this $E V_{F H} R_{2}$-evil
'They (these old slave women), they are evil.' (Teatro, 16)

[^118]```
b. Ene, Tupã roripápe awjerama jẽ erejko
ene Tupã r-oriß-sa\beta-pe awjerama jẽ ere-iko
you God R1-happiness-NMLZ-LOC for.ever PRCL 2SG-be
'You, you already are in the glory of God for eternity.' (Teatro, 124)
```


### 9.4.2 Pre-core slot

For Van Valin Jr and LaPolla (1997, 228), the default interpretation of elements in the $\operatorname{PrCS}$ is focal, and this is the obligatory interpretation if they are WH-words . WH-words always comprise a particular type of argument-focus construction. Before proceeding to the examples, Table 9.1 shows WH-words in TUP. Some words can be reduplicated to indicate plural number e.g. (456a), and most, if not all of them may occur with and without the interrogative clitic $=p e$.

| WH-word | Meaning | Colexification | Attested in |
| :---: | :---: | :---: | :---: |
| Mape | what, which | thing | DC, I, 133 |
| A $\beta$ a | who | person |  |
| Eri | when |  |  |
| Mamõ | where |  |  |
| Manõj | where from |  | VLB, I, 106 |
| Marã | how, why |  | DC, I, 133 |
| Marãmo | why | how + translative |  |
| Marãnamo | why | how + translative |  |
| Marãyatu | how + intensivizer |  |  |
| Marajatuete | why | how + intensivizer + good |  |
| MaRete | what | what + focus |  |
| Mobi | how many | some, few | DC, I, 133 |
| Mojrã | when |  |  |
| Monomo | how many |  |  |
| Nãßo / (na)nãmo |  | how many |  |
| Umã | where |  | Teatro, 130 |
| UmãßaRe | which |  | DC, I, 158 |
| Umãme | where | DC, I, 180 |  |
| amãme | where |  | VLB, II, 57 |
| Marãete? ${ }^{\text {i }}$ | how | how + good |  |

Table 9.1: WH-words in Tupinambá

WH-words in Tupinambá are always focal in a WH-question and always show up in the PrCS. Some examples are given in (456):

$$
\begin{array}{lll}
\text { a. } & \text { MaRemaRepe } \quad \text { ajaja } & \text { ojpotar? }  \tag{456}\\
\text { maPe-maPe=pe ajay-a } & \text { o-i-potar } \\
\text { WH-WH=Q } & \text { devil-REF } & \text { 3-R }{ }^{2} \text {-want }
\end{array}
$$

'Which things does the devil want?' (Araújo, 27v)
b. ErimaPepe erejur?
erimaPe=pe ere-jur
WH=Q 2SG-come
'When did you come?' (FA, 166)
c. Umãmepe seków?
umãme=pe s-eko-w
WH-Q $\quad \mathrm{R}_{2}$-be-NFOC
'Where does he live?' (DC, I, 180)
d. Marãmarãpe santíssima trindade rera?
marã-marã=pe santíssima trindade r-er-a WH-WH=Q holy trinity $\mathrm{R}_{1}$-name-REF
'What are the names of the Holy Trinity?' (DC, I, 157)
e. MaPetepe peseka ko feretama pupe?
maPe-te=pe pe-s-eka ko $\int \mathrm{e}=\mathrm{r}$-etam-a pupe
WH-FOC=Q 2 PL-R 2 -search DEM $1 \mathrm{SG}=\mathrm{R}_{1}$-country-REF POSP
'What then are you looking for in this country of mine?' (Teatro, 28)
f. MaPepe ereru nekaramemuã pupe?
maRe=pe ere-er-ur ne= $\varnothing$-karamemuã- $\varnothing$ pupe
WH=Q 2SG-SCAU-come $2 \mathrm{SG}=\mathrm{R}_{1}$-box-REF LOC
'What have you brought in your box?' (Léry, 342-343)
g. MaPepe ojonon iakaya $\operatorname{Pari} ß o$ ?
maPe=pe o-jo-noy i-akay-a $\quad$ Par- $\beta$ o
$\mathrm{WH}=\mathrm{Q} \quad 3-\mathrm{R}_{2}$-put $\mathrm{R}_{2}$-head-REF superior.part-PERL
'What did they place around his head?' (AC, 60v)

The interrogative clitic =pe may attach to the focalized element (narrow focus) instead of attaching to the WH-word:
a. MaRe apiaßарајро?
maPe apia $\beta-a=$ ре ajpo
WHAT native $R_{1}=\mathrm{Q}$ that
'Which Indians are those?' (Teatro, 142, 2006)
b. $\operatorname{Mo} \beta \mathrm{i} \quad \mathrm{maPe}$ resepe ase jerurew?
mo $\beta \mathrm{i} \quad$ maPe- $\varnothing$ r-ese=pe ase jerure-w how.many thing-REF $\mathrm{R}_{1}$-POSP=Q we ask-NFOC
‘For how many things do we ask?' (Araújo, 26)

Sometimes $=p e$ is omitted.
(458) $A \beta$ a serã oeru?
a $\beta$ a serã o-er-ur
WH by.the.way 3-CAUS.SOC-come
'Who by the way has brought it?' (Teatro, 6)

### 9.5 Narrow focus

The question clitic =pe (interrogative illocutionary force) follows narrow focus,. Thus, it can follow any fronted constituent (see Lambrecht 1994, 221-238). It follows the verbal predicate in (459a) and the nominal predicate in (459b). In (459d), it follows the pronoun in the $\operatorname{PrDP}^{11}$ and in (459d), it is placed after the time adverb:

$$
\begin{array}{lll}
\text { a. } & \text { Osapj} \text { jápe } \quad \text { Pilatos ijeReŋja } & \text { a?éreme ko?ite? }  \tag{459}\\
\text { o-s-apj} \text { ak=pe Pilatos i-je?eŋ-a } & \text { a?ereme ko?ite } \\
\text { 3-R } R_{2} \text {-obey-Q Pilatos } R_{2} \text {-speech-REF afterwards finally } \\
& \text { 'Did Pilatos then finally obey their words?' (Araújo, 61) }
\end{array}
$$

b. Turusukatupe aPe cruz erima?e?
t-urusu-katu=pe aPe cruz erimaie
$R_{2}$-big-INTS=Q DEM cross ADV
'Was his cross REALLY BIG?' (Araújo, 61v)
c. Sepe asóne?
fe=pe a-so=ne
$1 \mathrm{SG}=\mathrm{Q} 1 \mathrm{SG}-\mathrm{go}=\mathrm{FUT}$
'Is it I who will go?' (FA, 166)
d. Oiao $\beta$ ok rajẽpe $\dot{i} \beta \dot{\mathrm{ia}}$
o-i-ao $\beta$-ok rajẽ=pe i $\beta$ ia
3-R2-cloth-take.off ADV=Q PART
'BEFORE IT his clothes were removed.' (Araújo, 61v)

It seems that there is a restriction on question formation according to which the element questioned (the question word in a simple, direct WH-question or the focal NP in a simple, direct yes-no question) must function in a clause which is within the potential focus domain of the sentence (Van Valin Jr. et al. 1996).

[^119]
### 9.6 Indicative II or oblique-topicalized?

Many TG languages have a construction in which fronted adverbials (adverbs or postpositional phrases) trigger a change in the verbal morphology. Rodrigues (1953); Almeida et al. (1983); Praça (2001) called this construction 'indicative II'. Rodrigues later abandoned this terminology and called the construction 'circumstantial mood' Rodrigues (1996a); Praça (I999); Sekil (2000). Jensen (1999); Harrison (1986); Vieira (2014) refer to this construction as 'oblique-topicalized'. I consider the former term inappropriate because the construction has nothing to do with mood (see Bybee et al. 1994, 176-181). Regarding topic, the construction indeed extracts the adverbial constituent into a more discourse prominent position, but the function of the extracted unit is that of focus. The focal status of the fronted adverbial constituents had already been suggested by Dobson 2005 and Vieira 2014. This construction is thus a type of extraction, because extraction is normally restricted to the informational focus of the proposition, i.e., extracted phrases correspond to the informational focus of the utterance (see Van Valin Ir. 1986; Van Valin Jr. et al. 1996; Goldberg 2013), and the adverbial occurs in a position different from its canonical position in a declarative sentence.

The presence of fronted adverbials in TUP in the PrCS triggers the nominalization of the main predicate, indicated by possessor indexes (Set II in Table 4.3) with the addition of the suffix $-i$ following a consonant $\sim-w$ following a vowel. In Tupinambá this construction is possible only with first and third person ${ }^{\boxed{ } 1}$, as in (460). Note that the gloss of the nominalized predicate is NFOC because the focus is on the fronted adverbial expression ${ }^{16}$. The translation implies a cleft-like semantic structure with narrow contrastive focus on the fronted adverbials. ${ }^{[]}$

[^120]a. Kori ijukaw
kori i-juka-w
yesterday $\mathrm{R}_{1}$-kill-NFOC
'It was yesterday that he killed it (his killing of it).' (Arte, 39v)
b. Koromõ fekajemi

Koromõ $\int \mathrm{e}=\varnothing$-kajem-i
soon $\quad 1 \mathrm{SG}=\mathrm{R}_{1}$-flee-NFOC
'It is soon that I (shall) run away.' (AA, 39v)
c. Janekajemire Tupã amõ kujãjatu mojayi jane=kajem-ire Tupã amõ kujã-1jatu- $\varnothing$ mojay-i
1PL.INCL=loose.oneself-POSP God certain woman-good-REF make-NFOC
'It was after we lost ourselves that God made a good woman.' (AP, 86)
d. $\mathrm{K}^{\mathrm{w}}$ ese Pedro nerese imaRenwari
$\mathrm{k}^{\mathrm{w}}$ ese Pedro ne=r-ese i-maPenwar-i yesterday Pedro $2 \mathrm{SG}=\mathrm{R}_{1}$-POSP $\mathrm{R}_{1}$-remember-NFOC
'It was yesterday that Pedro remembered you.' (Fig., 94)
e. $\mathrm{K}^{\mathrm{w}}$ ese nerese Pedro imaPenwari
$\mathrm{k}^{\mathrm{w}}$ ese $\quad$ ne=r-ese $\quad$ Pedro $\varnothing$-maPenwar-i yesterday $2 \mathrm{SG}=\mathrm{R}_{1}$-POSP Pedro $\mathrm{R}_{1}$-remember-NFOC
'It was yesterday that Pedro remembered you.' (Fig., 94)
f. Pedro okope sekow

Pedro o-ko=pe s-eko-w
Pedro $3_{\text {CORF }}$-slash-POSP $\mathrm{R}_{2}$-be-NFOC
'It is in his own slash that Pedro is.' (Fig., 84)

The association of this construction with focus is supported by the fact that questioning an adverbial expression triggers the nominalization and the nonfocal suffix, i.e., a WH-word or a constituent in the scope of the focal clitic $=p e$, which are always focal and block the predicate from being the focalized constituent. Some examples are given in 461:
a. Mamõpe isow omaPe?upaßire?
mamõ=pe i-so-w o-maPe-Pu-pa $\beta$-rire
where=Q $\mathrm{R}_{2}$-go-NFOC $3_{\text {CORF }}$-thing-ingest-finish-after
'Where did he go after he finished eating?' (Araújo, 52v)
b. Marãtepe ase rekow oeõriréne?
marã-te=pe ase r-eko-w o-eõ-rire=ne
how-FOC $=\mathbf{Q}$ we $\mathrm{R}_{1}$-be-NFOC $3_{\text {CORF }}$-death-after=FUT
'How will we be after his death?' (DC, I, 161)
c. Mamõpe Tupã rekow?
mamõ=pe Tupã r-eko-w
where $=\mathrm{Q}$ God $\mathrm{R}_{1}$-be-NFOC
'Where is God?' (DC, I, 158)
d. Opakatúpe Tupã ase piPapenwara tirwã repiáki?
opa-katu=pe Tupã ase pỉa-penwara tirwã r-epiak-i all-good=Q God we heart-NMZL ${ }_{\text {CIRC }}$ even $\mathrm{R}_{1}$-see-NFOC
'God sees everything, even what is in our hearts?' (DC, I, 158)
e. Marãmo ahẽ rekow omaPekatúramo Jeswi? marãmo ahẽ r-eko-w o-maPe-katu-ramo $\int \mathrm{e}=\varnothing$-swi why DEM $\mathrm{R}_{1}$-be-NFOC $3_{\mathrm{CORF}^{-}}$-thing-good-TRSL $1 \mathrm{SG}=\mathrm{R}_{1}$-from 'Why does this one have more good things than me?' (Araújo, 109v)

The nominalization of the verb is reflected by the person markers of Set I (see Table $4.3]$ ), creating a genitive construction ([ $\left.\mathrm{N}_{1}-\mathrm{N}\right]$ ). Examples ( 460 c ) and ( 460 d ) are illustrative in this regard: in (4601c) i-ma Penwar-i, the head takes the non-contiguity marker $-i$ signalizing a constituent discontinuity, because Pedro (the dependent) is not contiguous to it. In (460)d), the marker of contiguity signalizes that Pedro, the dependent, and the head maRenwar-i form a genitive construction without constituent discontinuity.

Praça et al. (2017, 52) suggest ${ }^{\boxed{8}}$ that this construction requires nominalization of the main predicate because the adverbial becomes the main predicate when fronted and, as a consequence, the nominalized predicate becomes an argument of the adverbial predicate without the necessity of a copula. According to this view, the literal translation of (460a) and (460)d) would be something like 'It is tomorrow, Pedro's remembrance of you'. They suggest this parallels the fact that in some TG languages, adverbial expressions may function as predicates without a copula ${ }^{\text {® }}$, a construction that the authors conjecture might have existed in TUP, despite not being attested, not even once. This construction is exemplified in (462) in Tapirapé四

[^121]（462）（Tapirapé，TG）

Tapi＇ir－a ka＇a＝pe
Tapir－RFR forest－POSP
＇The Tapir is in the forest．＂（Praça et al．2017，48）

It is difficult to think of a reason why such a simple construction is not attested in the Tupinambá corpus，if it existed（it is also not attested in Old Guaraní ）．Furthermore，the relation between the constructions mentioned in Praça et al．（2017）is not so obvious．The distribution of both constructions in the TG languages is also not informative，as shown in Table 9.2.

Undoubtedly，there is a discourse－pragmatic base for this construction－be it the type of predicate suggested by Praça et al．（2017）or not．Evidence for this includes not only the fact that topicalized elements are usually fronted to a detached position（see Lambrecht 1994），but also a clue given by the first Tupi grammars．Anchieta（1595，39v）says that verbs can lose their person indexes（Set II in 4．3）if preceded by an adverb，preposition， gerund（．．．），or a phrase answering to another one ${ }^{[⿴ 囗 ⿰ 丨 丨 丁}$ ；Figueira（ 1687,93 ）is more precise when he writes of this construction，explaining that it can occur if it is preceded by some adverb，preposition，or gerund，or if one talks about something that has already been spoken about，pertaining to that verb，i．e．，the topic $(\ldots)^{[2]}$ ．

The nonfocal suffixes $-i$ and $u$ were not used in the southern variety described by Anchieta（1595，40）．In their place，the translative case marker is used．
（463）Koromõ $\int \operatorname{erori} ß$ ßamo
koromõ $\int \mathrm{e}=\mathrm{r}$－orí $\beta$－amo
soon $1 \mathrm{SG}=\mathrm{R}_{1}$－happy－TRSL
＇Soon I will be happy．＇（AA，40）

[^122]| Language | Presence |
| :---: | :---: |
| Asuriní Tocantins | 1 |
| Parakanã | 1 |
| Suruí | 1 |
| Tapirapé | 1 |
| Tembé | 1 |
| Guajajára | 1 |
| Parintintin | $?$ |
| Kayabi | 1 |
| Asuriní Xingu | 1 |
| Arawete | 0 |
| Kamayurá | 1 |
| Emerillon | 0 |
| Guajá | 1 |
| Wayampi | 0 |
| Ka’apor | 0 |
| Anambé | 1 |
| Ava-canoeiro | 1 |
| Tupinambá | 1 |
| Nheengatu | 0 |
| Guarayo | $?$ |
| Sirinono | $?$ |
| Yuki | 0 |
| Warazu | 0 |
| Mbya | 0 |
| Guaraní | 0 |
| Chiriguano | 0 |
| Old Guarani | $?$ |
| Kaiwá | 0 |
| Tapiete | 0 |

Table 9.2: Non-focal constructions with fronted adverbials in TG languages

### 9.6.1 Topic

In Section 4.3.2, it was shown that it is possible to have two different sentences with the same semantic interpretation. In example ([125) each sentence has a different word order and hence a different contiguity marker (relational). One reason for these choices be topicalization. The fronting of the intransitive subject or the fronting of the DCA of a transitive verb implies topicalization of these elements. In (L25) it seems - the sentences are given without a context - that the difference lies in the fact that the 'object' Pedro is fronted in ([125b) as a marked topic.

It is possible to front the subject pitay of (464a) by placing it in the PrDP, thus topicalizing the subject. This is seen in (464D) where the resumptive argument index is co-indexed with a subscript.
a. Osi swi pitaya Pareme...
o-si- $\varnothing$ swi pitay-a Par-reme
$3_{\text {CORF-mother-REF from child-REF be.born-SUBJ }}$
'When a child is born from his/her mother...' (Araújo, 8)
b. Pitaya ${ }_{i}$ osi swi $i_{i}$ Rareme...
pitaj-a o-sì- $\varnothing \quad \varnothing$-swi i-Rar-reme
child-REF $3_{\text {CORF }}$-mother-REF $\mathrm{R}_{1}$-from $\mathrm{R}_{2}$-be.born-SUBJ
'A child, when he/she is born from his/her mother ...' (Unattested)

The same contrast observed in the examples in (464a) can be observed in (465):
a. Korite?ĩ Pedro ferußa mogetaw
korite? $\tilde{i}$ Pedro $\int \mathrm{e}=\mathrm{r}-\mathrm{u} \beta-\mathrm{a} \quad$ mojeta-w
now Pedro $1 \mathrm{SG}=\mathrm{R}_{1}$-fatherREF talk-NFOC
'Now, Pedro talks to my father.' (FA, 96)
b. Korite? $\tilde{i}$ feru $\beta$ a Pedro imoŋetaw
korite? $\tilde{i} \int e=r-u \beta-a \quad$ Pedro i-mogeta-w
now $\quad 1 \mathrm{SG}=\mathrm{R}_{1}$-father-REF Pedro $\mathrm{R}_{2}$-talk-NFOC
'Now, with my father, Pedro speaks.' (FA, 96)

In (464), as in (465), the b examples are not attested examples. Nonetheless, such contrasts are indeed attested; both constructions are found in TUP. This is seen in (466), with a topicalization in (466b), indicated by the fronting of the 'object' (ma Reasißora 'one who is ill') to the PrCS, with a resumptive 'index' in the relational of non-contiguity ( $i-$ ) with sußan, indicating that its dependent is not contiguous:

'Yesterday, the shaman sucked (healed) the one who was ill.' (FA, 96)
$\begin{array}{llll}\text { b. } & \mathrm{K}^{\mathrm{w}} \text { ese paje } & \text { maReasi } \beta \text { ora } & \text { su } \beta \text { ani } \\ \mathrm{k}^{\mathrm{w}} \text { ese paje- } \varnothing & \text { maReasi- } \beta \text { or-a } & \text { su } \beta \text { an-i } \\ & \text { yesterday shaman-REF } & \text { illness-NMZL }{ }_{\text {CIRC }} \text {-REF } & \text { suck-NFOC }\end{array}$
'Yesterday, the one who was ill, the shaman sucked (healed) him.' (FA, 96)

### 9.7 Nonfocal argument index

One manifestation of topicality is seen in the non-canonical indexing of arguments when both arguments are third person . Both Anchieta (1595) and Figueira (1687) acknowledge the phenomenon (see Rodrigues 1990).

In the case of two third person core arguments, Rodrigues (1990, 398) observes: 'If the subject, that is, the agent, is in focus, it is marked on the verb by o-; if conversely, the object, that is, the patient, is in focus, the subject is marked by $y a$ '. This contrast is illustrated in 467.
a. Pedro moja ojuka

Pedro moj-a o-i-juka
Pedro snake-REF 3-R $\mathrm{R}_{2}$-kill
'Pedro killed the snake.' (FA, 99)
b. Pedro moja jajuka

Pedro moj-a ja-i-juka
Pedro snake-REF 1PL.INCL-R2-kill
'Pedro killed THE SNAKE.' (FA, 99)

Other examples provided by the first TUP grammar are given in (468).
(468)
a. Moja Pedro jaisuPu
moj-a Pedro ja-i-fuPu
snake-REF Pedro 1PL.INCL-R2-bite
‘THE SNAKE bit Pedro.' (AA, 36v)
b. $\int \operatorname{eru} \beta \mathrm{a}$ to $\beta$ ajara ja?u
fe=r-u $\beta$-a to $\beta$ ajar-a ja-?u
$1 \mathrm{SG}=\mathrm{R}_{1}$-father-REF enemy-REF 1PL.INCL-eat
'THE ENEMIES ate my father.' (AA, 36v)
c. Pedro taPira jainupã

Pedro t-aPir-a ja-i-nupã
Pedro R2-son-REF 1PL.INCL-R 2 -hit $^{2}$
‘HIS SON hit Pedro.' (AA, 36v)
d. Morußisaßa mona jainamiokukar moru $\beta$ isa $\beta$-a mona- $\varnothing$ ja-i-nami-ok-ukar judge-REF thief-REF 1PL.INCL-R 2 -ear-cut-FAC
'The judge had the THIEF'S EAR cut off.' (AA, 36v)
e. Japop ${ }^{\text {waratã, }}$ imoajaipapa. Suwi momukapa, ja-po-p ${ }^{w}$ ar-atã i-mo-aŋaipa $\beta-a \quad$ s-uwi- $\varnothing$ mopukap- $\beta$ a
1PL.INCL-hand-tie-strong R2-CAUS-evil-GER R2-blood-REF CAUS-spill-GER jainupãnupã
ja-i-nupã.nupã
1PL.INCL-R 2 -hit.ITER
'They tied his hands, making him bleed and hitting him.' (Poemas, 120) ${ }^{[3]}$

Outside the grammars, the nonfocal agent or focal-undergoer is further attested many times, indicating it was a common resource of the language, as (469) exemplifies. Examples such as the following are important because they are inserted in a discoursive context, allowing for a better understanding of the phenomenon.

> a. Moraseja reroßjara ipiPa jaiporaka
> p.orasej-a r-eroßjar-a i-pi?a- $\varnothing \quad$ ja-i-poraka
> $\mathrm{R}_{3}$.dance-REF $\mathrm{R}_{1}$-belief-REF $\mathrm{R}_{2}$-heart-REF 1PL.INCL-R ${ }_{2}$-fill
> 'The belief in the dance fills their hearts.' (Teatro, 32)
b. Nomenari emonã tekoarwera jaipe?a
na-o-menar-i emonã t-eko-ar-wer-a ja-i-pe?a
NEG-3-marry-NEG thus $\mathrm{R}_{3}$-be-NMLZ $\mathrm{AG}^{-P S T-R E F ~ 1 P L . I N C L-R ~}{ }_{2}$-separate
'He/she did not marry. Thus, having been (married), he/she divorces her/him.'
(Araújo, 128)

The anonymous vocabulary in Anonymous (1952a) gives important information regarding word order. In the entry for the 'lunar eclipse' (eclypsarse a lua) (vol. I, 108), the example that translates to 'something eats the moon'ㄸ4 is given in two different orders, which are shown in (470).
a. Jasi maPe jaPu
jasì- $\varnothing$ maRe- $\varnothing$ ja-Ru
moon-REF thing-REF 1PL.INCL-ingest
'A THING eats the moon.' (VLB, I, 108)

[^123]b. MaRe jasi jaRu<br>maRe- $\varnothing$ jasi- $\varnothing$ ja-Ru<br>thing-REF moon-REF 1PL.INCL-R ${ }_{2}$-ingest<br>'A THING eats the moon.' (VLB, I, 108)

Just like in a direct-inverse system, this non-canonical marking in TUP contrasts with the opposition of active/passive/antipassive and obviative/proximate (see Givón 1994), and the basic function of these syntactic devices is to rank participant RPs along a certain dimension or hierarchy, which might be called the animacy hierarchy, and which displays great variety across languages (see Crott 2003, 128-157 and references in Oshima 2007, 733-734).

The non-canonical marking of third person with $j a$ - avoids ambiguity since, as suggested by the comments of Anchieta (1595, 36v), Figueira (1687, 99), and Anonymous (I952a, 108), there should have been a hierarchy of the type human $>$ non-human for marking the lowest argument in the hierarchy as more salient, somewhat like an obviativeproximate distinction ${ }^{[\boxed{~}]}$, i.e., a non-salient or less topical (obviative) third-person referent and a more salient or more topical (proximate) third-person referent in a given discourse context. This is a distinction that, due to the character of the texts, cannot be recovered with precision, since in many examples both arguments are human (e.g. 468b, 468d, 468e, 469a).

[^124]
## Complex sentences

This chapter presents aspects of complex sentences, of which RRG has a distinctive theory consisting of three main components: the theory of juncture, i.e., the units involved in building complex sentences; the theory of nexus, which deals with the relationship between units involved in the linking (Van Valin Jr and LaPolla 1997, 441); and finally, the theory of interclausal semantic relations, which deals with the semantic relationship between the units in the juncture.

The next sections deal with complex sentences in TUP based on the levels of juncture in Section $\mathbb{0 . ]}$ and the types of relations in Section [0.2. Complex RPs are dealt with in Section [10.3.

### 10.1 Levels of juncture

The units involved in complex constructions are those of the LSC: nucleus, core, and clause (see Section [i]). The juncture of these levels causes the following patterns to emerge:
a. [core ... [nuc PRED] ...+...[nuc PRED] ...] Nuclear-level juncture
b. [clause $\ldots$ [core $\ldots$ ] $\ldots+\ldots$ [core...]...] Core-level juncture



### 10.1.1 Nuclear junctures

Nuclear juncture is found in TUP with complex predicates that express a single event. In a nuclear juncture the arguments are assumed to be arguments of a single complex nucleus. The examples in (472) from Van Valin Jr and LaPolla (1997, 442) illustrate a nuclear juncture in English.
(472) a. John forced open the door
b. John forced the door open

The two distinct nuclei force and open side-by-side form a single complex predicate as in (472a), or they can be separated by an argument such as the door in (472b). In both cases the two nuclei are interpreted as a single entity having two arguments, John and the door. The layered structure of (472a) is given in Fig. (W0.D), showing its logical structure:

$\left[\right.$ do $^{\prime}$ (John, [force ${ }^{\prime}$ (John, door) $]$ )] CAUSE [BECOME open' (door) $]$
Figure 10.1: English nuclear juncture

TUP shows nuclear juncture in cases of incorporation (see Section 5.7.2) like (473) where the incorporated lexical root is M-transitive, in which case the undergoer indexed by $R_{2}$ is an argument of the incorporated root. The syntactic representation is given in Fig. 10.2.
(473) Aimojaywa $\beta$
a-i-mojay-kwa
1SG-R2-do-know
'I know how to do it.' (FA, 157)


Figure 10.2: Nuclear juncture
$\left[\mathbf{k n o w}^{\prime}\left(\mathrm{I},\left[\mathbf{d o}^{\prime}(1 \mathrm{SG}, 3)\right]\right)\right]$

### 10.1.2 Core junctures

Core junctures are made up of multiple cores, each with its own nucleus and some (or all) of its arguments. In this type of juncture, one of the core arguments functions semantically as an argument of both predicates, as in (474), with its structure given in Figure $10.3{ }^{[1}$ :
(474) John saw Mary calling Bill

```
    see}\mp@subsup{}{}{\prime}(\mathrm{ John, do' (Mary) [call'(Mary, Bill)])
```

 do $^{\prime}\left(\right.$ John $\left[\operatorname{express}(\alpha)\right.$. to. ( $\beta$ ).in.language. $(\gamma)^{\prime}($ John, Mary $\left.\left.)\right]\right)$ CAUSE do' $^{\prime}$ (Mary) $\left[\right.$ call $^{\prime}$ (Mary,Bill)]

Figure 10.3: English core juncture

Both cores in Figure (10.3) have their own nuclei and arguments, and one argument appears in the semantic representation of both predicates, but only once in the syntactic representation. In (474), Mary is the shared argument. It is the undergoer of see and the actor of call. In other words, the linked core is an argument of the matrix verb semantically but not syntactically. This is an example of core subordination whereby a core unit is an

[^125]argument of a matrix core. The subordinate nature of the linked core is indicated by the gerund in the dependent core ${ }^{\text {D. }}$.

The only type of core juncture in TUP will be discussed in Section [0.2.3.

### 10.1.3 Clause junctures

Clause juncture constructions contain two (or more) independent clauses, all of which have their own arguments (see [475).
(475) Dana jogged through the park, and Kim waved to him

In the above example, Dana jogged through the park and Kim waved to him are distinct clauses, and each is linked independently of the other, just as if each were a simple sentence on its own. The fact that there is a pronoun in the second clause referring (possibly) to Dana in the first clause does not affect the linking.

### 10.1.4 Sentential junctures

Sentential junctures are complex constructions comprising two or more sentences. Such junctures may be a sentence with several clauses or a clause with a core juncture (see Van Valin Jr and LaPolla $(1997,469)$ and Van Valin .Jr $(2005,192)$ ).

### 10.2 Nexus relations

In RRG, nexus relations consist of the common clause linkage relations, coordination and subordination, as well as a relation unique to RRG, cosubordination. These are divided along the features of embedding and dependence ${ }^{[\pi]}$. They are schematically shown in Figure (10.4) from Van Valin .Jr (2005, 188).

The schema in Figure (10.4) captures the specific feature of each nexus relation. The nexi are divided along the features of embedding, dependence, and independence. At

[^126]

Figure 10.4: Nexus relations, from Van Valin Ir $(2005,188)$
the clause level, coordination shows two (or more) linked independent units. The linked units are self-sufficient as far as grammatical categories are concerned, as in (10.5). In a subordinate nexus relation, the schema indicates the embedding feature associated with subordination, wherein a matrix unit contains an embedded subordinate unit. The structurally embedded units can function as core arguments (complement clauses) or modifiers (adverbial clauses and relative clauses).


Figure 10.5: Types of connection in complex constructions, from Pavey (2010, 226)

Cosubordinate units are not independent; there is obligatory operator sharing at the level of juncture. They do not belong together with subordination, since subordination is defined in terms of embedding. The linked units appear to be independent, as in coordination, since none is embedded, but they practically belong together, as in subordination. Although cosubordinate units may or may not be conjunctively linked, some relations require them to belong together for semantic and syntactic reasons. Such a relation follows
if one or two grammatical categories are shared between the linked units. The unit with all the grammatical operators may stand on its own, but not without the necessary operator for a specific layer. Figure $[0.5$ shows the nexus types.

Consequently, the notion of 'dependence' is either structural dependence or operator dependence. Subordination and cosubordination share the 'dependence' feature, but not the type of dependence. The type of dependence in cosubordination is operator dependence, while the type in subordination is structural dependence through embedding.

Each nexus type can in principle occur at each level of juncture, generating nine possible juncture-nexus types. Hierarchically, they may be ranked according to the tightness of the linkage, yielding the clause linkage hierarchy in (476), from Van Valin.Jr (2001b).

Clause linkage hierarchy
[Tightest] Nuclear cosubordination $>$ nuclear subordination $>$ nuclear coordination $>$ core cosubordination $>$ core subordination $>$ core coordination $>$ clausal cosubordination $>$ clausal subordination $>$ clausal coordination [Weakest]

### 10.2.1 Coordination

The coordinated elements are of the same syntactic layer (nucleus, core, and clause) and have operator independence at the level of juncture.

Juxtaposition ${ }^{1{ }^{1}}$ is very common in TUP; clauses are juxtaposed without any clause linkage markers (CLM), as in (477). For example, in (477d), each clause has its own operators: the IF of the first is imperative and the second is permissive, as shown by its representation in Figure 10.6.


[^127]```
tetirwã mojangáramo sekow]
tetirwã moja\eta-ar-amo s-eko-w
all do-NMLZ }\mp@subsup{A}{AG}{}-TRSL R2-be-NFO
```

'Only God is something great, being our creator, being the creator of all things.'
(DC, I, 131)
b. [Ejori saPaya rõ], [totupãjeReøaßi], [tokaPu e-jori s-a?ay-a rõ t-o-tupã-je?ey-aßi t-o-ka?u
2SG.IMP-come R2-tempt-GER then HORT-3-God-word-fail HORT-3.beer.drink tomondarõ], [toporepejan ojkoßo], [tojpuru
t-o-mondarõ t-o-poro-epejan o-eko- $\beta$ o t-o-i-puru
HORT-3-steal HORT-3-ANTIP-attack 3-be-GER HORT-3-R2-use
tekopofi], [toso ko ta $\beta$ a swi]
t-eko-poji- $\varnothing$ t-o-so ko ta $\beta$-a swi
$\mathrm{R}_{2}$-law-evil-REF HORT-3-go this village-REF from
'Come, then, to tempt them, so that they violate God's word, so that they drink beer, so that they steal, so that they attack people, so that they act sinfully, so that they go away from this village.' (Teatro, 18)
c. Ejaso?jaßok nekaramemuã tasep ${ }^{j}$ ak
e-i-aso?jaß-ok ne= $\varnothing$-karamemuã- $\varnothing$ t-a-s-ep ${ }^{j}$ ak
2SG.IMP-R 2 -cover-take.off 2 SG=R ${ }_{1}$-box-REF HORT-1SG-R ${ }_{2}$-see
nemaRe
ne $=\varnothing-$ maPe $-\varnothing$
$2 \mathrm{SG}=\mathrm{R}_{1}$-thing-REF
'Uncover your box (and) I may see your things.' (Léry, 346)


Figure 10.6: Parataxis. Clausal juncture without a clause linkage marker

Another example of parataxis is given in (478).

'Did you mock, insult, threaten your father, mother, grandfather, grandmother?' (Araújo, 100v)

In (479), each clause has its own tense marker (the future clitic $=n e$ ) and they are linked by the adversative CLM konipo.
(479) Ajpo e?i jõte isupéne konipo aßare supe imome?uw ajpo e-?i jõte i-supe=ne konipo a $\beta$ are- $\varnothing$ supe i-mome?u-w DEM 3-say only $\mathrm{R}_{2}$-DAT=FUT or priest-REF to $\mathrm{R}_{2}$-tell-NFOC
iakakapawama resene
i-akaka $\beta$-wam-a r-ese=ne
$\mathrm{R}_{2}$-reprehend-FUT-REF $\mathrm{R}_{1}$-BECAUSE-FUT
'You will say this to him only or you'll tell the priest so that he reprehends him (lit.
for his reprehension).' (DC, I, 228)

Adversative coordination may involve expectedness in the form of ' p but not q ', or presuppose that 'normally, p and not q' (Croft 2022a, 437). Adversative coordination is expressed through parataxis with the adversative particle $a$ Pe in final position ${ }^{[1}$.

'It is not my slave, but my wife.' (Araújo, 95)
b. Na Pero ruã, tỉßira aPe
na Pero ruã t - $\mathrm{i} \beta$ ir-a a?e
NEG Pero NEG R $\mathrm{R}_{2}$-brother-REF this
'It was not Pero (who was going), but his brother.' (VLB, II, 115)
$\begin{array}{llll}\text { c. Karaißa } & \text { nasetaj, } & \text { São } & \text { Sebastião aPe omondik } \\ \text { karai } \beta \text {-a } & \text { na-s-eta-i } & \text { São } & \text { Sebastião aPe o-mondik } \\ \text { christians-REF } & \text { NEG-R } 2 \text {-many-NEG } & \text { Saint } & \text { Sebastian this 3-light }\end{array}$

[^128]```
tata sese
t-ata- \(\varnothing \quad\) s-ese
\(\mathrm{R}_{3}\)-fire-REF \(\mathrm{R}_{2}\)-POSP
‘The Christians were not many, but Saint Sebastian ignited fire on them.' (Teatro, 22)
```


### 10.2.2 Subordination

The RRG theory of clause linkage distinguishes between two types of subordination: daughter subordination, in which the subordinate junct is a daughter of a higher node, and peripheral subordination, in which the subordinate junct functions as a peripheral modifier of one of the layers, just like adverbials and adjuncts, as seen in Section B.L.2 (Van Valin Ir 2007; Matić et al. 2014).

A common type of daughter subordination is complementation (see Van Valin Jr and LaPolla 1997, 492-504), whereby a larger unit is linked to a smaller unit. This is exemplified in (481), with its representation in Figure [0.7, where believe takes 'that pets are allowed in the airplane' as its complement. In other words, the clause ' that pets are allowed in the airplane' is an argument of believe. Note that in Figure (10.7), the embedded clause is a daughter of the core node.
(481) Sue believes that pets are allowed in the airplane


Figure 10.7: Example of (object) complementation (subordination) in English

In TUP, a clause cannot function as a core argument due to the head-marking charac-
ter of the core, but it can be hosted in the ECS (see Section 6.3) as long as it is nominalized. In order to be in the ECS, it must be nominalized since the ECS in TUP cannot host a finite clause. The sentence in (487) would literally be translated into TUP as 'Sue believes it, the allowance of pets in the plane'. In (482a), a possessive RP semantically related to the undergoer argument of enu $\beta$ 'hear', marked with $s$-, is in the ECS (see Section 6.3). Literally, in (482a), one must say, 'May they hear it, that saying of yours'.
a. Tosenu ajpo ne?e
$\mathrm{t}-\mathrm{o}_{\mathrm{i}}-\mathrm{s}_{\mathrm{j}}$-enu $\beta \quad$ [ajpo ne $\left.=\varnothing-\mathrm{Pe}-\varnothing\right]_{\mathrm{j}}$
HORT-3-R2-hear DEM $2 \mathrm{SG}=\mathrm{R}_{1}$-say-REF
'May they hear that saying of yours.' (Teatro, 186)
b. Neakaya juka ajpota koríne
ne $=\varnothing$-akaŋ-a $\quad \varnothing$-juka- $\varnothing \quad$ a-i-pota $\quad$ kori=ne
$2 \mathrm{SG}=\mathrm{R}_{1}$-head-REF $-\mathrm{R}_{1}$-break-REF 1 SG-R $\mathrm{R}_{2}$-want today $=\mathrm{FUT}$
'I shall want to break your head today.' (Staden, 156)

Peripheral or adverbial subordination involves a clause appearing as a peripheral modifier, and because all three layers may be modified, there is ad-nuclear, ad-core, and ad-clausal subordination. Ad-nuclear subordination is not found in TUP. In ad-core subordination the core is modified by a peripheral adverbial providing information about time, space, manner, or pace, as in $(483))^{6}$, where the adverbial expression Seporupi modifies the core ejoti.

| (483) | Ejoti | nekesa $\beta a$ | fepo | rupi |
| :--- | :--- | :--- | :--- | :--- |
|  | e-jot | ne $=\varnothing$-kesa $\beta a$ | e $=\varnothing$-po | r-upi |

2SG.IMP-tie $2 \mathrm{SG}=\mathrm{R}_{1}$-sleeping.mat-REF $2 \mathrm{SG}=\mathrm{R}_{1}$-hand $\mathrm{R}_{1}$-at
'Tie your hammock next to me.' (AA, 44)

Ad-clausal subordination is found, for example, when joined together by a causal link marker such as because. An example is given in (484), with its representation in Figure 10.8.

[^129](484) Pedro oso omonóreme

Pedro o-so o-mo-so-reme
Pedro 3-go CORF-CAUS-go-because
'Pedro goes because/when/if he is sent.' (FA, 84)


Figure 10.8: Peripheral ad-clausal subordination

The suffix -reme is here characterized as a CLM, but diachronically, it is a postposition which, based on the extant texts, appears to have been going through a process of grammaticalization (see Section $6.5 . \mathrm{I}^{2} 3$ ) towards the loss of its postpositional status, becoming a subordinating morpheme in Nheengatu (see Cruz [011, 390-391) ${ }^{[1}$.

Other examples of ad-clausal subordination are given in (485). ${ }^{\text {. }}$
a. Ere?u memẽ so?o Paretéreme
ere-Pu memẽ s-o?o- $\varnothing$ Par-ete-reme
2SG-ingest always R2-meat-REF day-INTS-CLM
'You always ate meat when it was a holiday.' (Teatro, 168)
b. Marãpe Tupã serekow emonã sekóreme?

Marã=pe Tupã s-ereko-w emonã s-eko-reme
how=Q God $\mathrm{R}_{2}$-treat-NFOC thus $\mathrm{R}_{2}$-be-CLM
'How did God treat them when/after they acted this way?' (DC, I, 160)
c. Serureme, asoßajtĩ $\quad$ Seremierekop ${ }^{w}$ era
fe=r-ur-eme a-s-oßajtí $\int$ e=r-emi-ereko-pwer-a
$1 \mathrm{SG}=\mathrm{R}_{1}$-come-CLM 1SG-R2-meet $1 \mathrm{SG}=\mathrm{R}_{1}$-RES-keep-PST-REF
'When I came, I found what I had been keeping.' (Léry, 375)

The main clausal subordination construction type involves a clause as a peripheral

[^130]modifier (ad-clausal subordination). A subordinate unit expresses, in a sense, a secondary event within the main event, so it may also have its own arguments and operators. In (486), the dependent clause in both sentences is linked to the main clause through a CLM. The LSC of (486a) is represented in Figure 10.9:

|  | i $\beta$ akipe Cristo janejara | jeupirire ko sancto rajẽ ipi |
| :---: | :---: | :---: |
|  | i $\beta$ ak-pe Cristo jane $=\varnothing$-jar-a | je-upir-rire ko sancto rajẽ ipi |
|  | sky-LOC Christ 1SG=R2-lord-REF guwi mo?ẽukar... | RFLX-elevate-after this saint first begin |
|  | o-uwi- $\varnothing$ mo-?ẽ-ukar |  |
|  | CORF-blood-REF CAUS-shed-FAC |  |

'This saint (Stephen) shed his own blood for the first time after Christ, our lord, went to heaven.' (Araújo, 10)
b. Erejakaygangápe
ere-i-akay-ka-ka=pe 2SG-R ${ }_{2}$-head-break-break=Q 2 SG=R $R_{1}$-son-REF $R_{2}$-abort before
'Were you hitting your child's head before aborting it? (Did you head-break you child before aborting it?)' (DC, II, 88)


Figure 10.9: Ad-clausal subordination
(487) OmaReRu wemimoReeta piri karúkeme, Santo-Sacramento me?eŋa o-maPe-Pu o-emimoPe-eta piri karuk-eme Santo-Sacramento me?eŋ-a 3-thing-eat CORF-disciple-PL with afternoon-LOC holy-sacrament give-GER janone
janone
before
'He ate together with his many disciples, in the afternoon, before giving the holy sacrament.' (Araújo, 52)

A common type of ad-clausal subordination involves clause linkage through clause
linkage markers such as jepe 'even if, despite, even though'. The example in (488) shows two clauses, each with its own tense operator, linked by jepe. Its representation is given in (10.10).
(488) Ereipisirõ jepene, neposwi arosẽne
ere-i-pisirõ jepe=ne ne= $\varnothing$-po-swi a-ero-sẽ=ne 2 SG-R ${ }_{2}$-set.free even.if=FUT 2 SG=R ${ }_{1}$-hand-ABL 2 SG-SCAU-exit=FUT
'Even if you release them, I will take them out of your hand.' (Teatro, 42)


Figure 10.10: Ad-clausal subordination with a clause linkage marker

Sentential subordination is also possible. In (489a), the fronted subordinate (adverbial) clause ajpo ojoupe Pe aße is in the $\operatorname{PrDP}$ of the sentence ojara repip ${ }^{w}$ era rejitiki Tupãokipe. A simplified representation of it is given in Figure (10.1]).

'After saying this to himself, he threw the payment for his own master in the temple.' (Ar., Cat., 57v)

A sentence may contain both, a daughter subordinate and an adverbial subordinate, as in (4901):

```
Oipotarepe judeus ojuka iswi ojepisirõPeima?
    o-i-potar-e=pe judeus o-juka- }\varnothing\mathrm{ i-swi o-je-pisirõ-}\beta0-Reim-a
    3-R2-want-PRCL=Q jews CORF-kill-REF R2-from 3-RFLX-free-GER-PRIV-REF
```



Figure 10.11: Subordination at the Sentence-level
'Did he indeed want his (own) killing by the Jews without getting rid of them?' (Bettendorf, 46)

### 10.2.3 Cosubordination

The existence of cosubordination as an intermediate between coordination and subordination was first proposed in Foley and Van Valin Jr (1984) and has overcome significant theoretical criticisms regarding its validity (see Bickel 2010; Foley 2010). Recently, Van Valin . Ir (2021) has put an end to the discussion by showing it must indeed be treated as a distinct nexus type.

Cosubordination resembles subordination in that it is structurally asymmetrical, comprising an independent clause and a cosubordinate clause which cannot stand alone as an independent unit. Thus, both cosubordinate and subordinate clauses are dependent. However, cosubordination resembles coordination in that there is no embedding. The dependence is exclusively at the level of operators: the linked unit must share at least one operator at the level of juncture with the licensing unit. Cosubordination cannot occur at the sentence level, because there are no sentence-level operators.

In (491), the examples of complex nuclei would seem to be instances of nuclear cosubordination, because both $a w s u \beta$ and pe $? a$ would share a nuclear operator.
(491)

```
a. Tupã osawsupe?a
Tupã o-s-awsu \(\beta-\mathbf{p e} \mathbf{2 a}\)
God 3-R2-love-quit
'God stopped loving them.' (Teatro, 30)
\(\left[\right.\) stop \(^{\prime}\left(\right.\) God, \(\left[\operatorname{love}^{\prime}(\right.\) God, 3\(\left.\left.)\right]\right]\)
```

$\begin{array}{ll}\text { b. ToiPusejkatu } & \text { Tupã reko } \\ \text { t-o-i-Pu-sej-katu } & \text { Tupã r-eko- } \varnothing \\ & \text { HORT-3-R }{ }_{2} \text {-ingest-want-INTS }\end{array}$ God $\mathrm{R}_{1}$-law-REF
'May he really want (to ingest) God’s law.' (Araújo, 81v)

Nonetheless, there are cases of nuclear negation (see Section 6.5.3.2), which are only found in nominalized clauses with a complex nucleus. This means that nuclear cosubordination may have existed despite not being attested in the texts, because the nominalizations in (492) would not be possible if their non-nominalized counterparts did not exist.
a. Osopotare?imaRe
o-so-potar-e?im- $\beta$ aPe
3-go-want-PRIV-NMLZ $Z_{R E L}$
'The one who does not want to go.' (Araújo, 70v)
b. Oikopotare?ima
o-iko-potar-e?im-a
3-be-want-PRIV-GER
'Not wanting to act.' (Araújo, 27v)

In (491), M-transitive predicates were incorporated, but M-intransitive predicates may be incorporated as well, as shown in (493):

| a. | Nasopotari |
| :--- | :--- |
| n-a-so-potar-i | mamõ |
| NEG-1SG-R 2 -go-want-NEG far |  |
|  | 'I don't want to go far.' |
|  | (Poemas, 100) |

b. $O \beta e \beta e \beta$ erame? $\tilde{i}$
o- $\beta \mathbf{e} \beta \mathbf{e}-\beta$ erame? $\tilde{\mathbf{i}}$
3-fly-seem
'He seems to fly.' (VLB, II, 65)

A gerund can also incorporate another predicate, forming a complex nucleus:

| a. | Neirũnamo |
| :--- | :--- |
| ne $=\varnothing$-irũ-ramo | orojkopota |
| $2 S G=R_{1}$-companion-TRSL | oro-iko-pota |
|  | 1PL.EXCL-be-want.GER |
|  | (We) wanting to be with you.' (Poemas, 172) |

b. Ipupe nepojpota
i-pupe ne= $\varnothing$-poj-pota
$\mathrm{R}_{2}$-POSP $2 \mathrm{SG}=\mathrm{R}_{1}$-nourish-want.GER
'Wanting to feed you with them.' (Poemas, 150)

Another example of a gerund with incorporation was shown in (492b).

The reduplication of a predicate is a clear case of a complex nucleus (see Section 6.5 .3 dl ) and it always expresses aspectual notions (see Section 6.5.3.11), as in (495). The syntactic representation of (495a) is given in Figure 10.12. The translation of (495a) could be misleading, since it seems to imply that 'aimlessly' is a feature of the argument's volition or intention, which would make the peripheral adverbial a core modifier, but in fact, it is only the action (in this case, walking) that is affected.
a. Awatawata tejẽ
a-wata-RED ${ }_{\mathbf{D}}$ tejẽ
1SG-walk-walk in.vain
'I walk / keep on walking around aimlessly.' (VLB, II, 140)
b. Kipe ajenupãnupã
kipe a-je-nupã-RED ${ }_{\text {D }}$ for.a.long.time 1SG-RFLX-hit-hit
'I kept punishing myself for a long time.' (Teatro, 174)
c. Anosesem
a-nosem-RED ${ }_{M}$
1SG-remove-RED ${ }_{M}$
'I remove one after the other.' (VLB, II, 129)

Besides incorporation and reduplication, another instance of cosubordination commonly found in TUP is core cosubordination. In core cosubordination, a gerund (nominalized core) combines with a finite core in a core juncture. Cosubordinate cores must show traits of grammatical dependence in two senses: they must depend, at least, on one of the core operators, and they must share, in TUP, a core argument (see Foley and Van Valin Jr


Figure 10.12: Nuclear cosubordination

1984, 261,304 and Cerda 2021). The cosubordinate core must be non-finite and cannot have a subject or controller that is not an argument of the main predicate.

Examples of core cosubordination with a gerund are given in (496) and (497). Note that $o$ - 'third person' in (496a) and the wi- in (496b) are the shared arguments, which are overtly marked in intransitive gerunds.
a. Oropa $\beta$ oromanõmo
oro-pa $\beta$ oro-manõ- $\beta \mathbf{0}$
1PL.EXCL-terminate 1PL.EXCL-die-GER
'We come to an end (by) dying.' (Poemas, 82)
b. Asawsu sese wijemoririja
a-s-awsu $\beta$ s-ese wi-je-moririj-a 1SG-R2-love $\mathrm{R}_{2}$-POSP 1SG $\mathrm{CORF}^{-R F L X-c a r e-G E R ~}$
'I love her (while) taking care/and take care of her.' (Poemas, 182)

The representation of (496a) is given in Figure 10.13 . Note that the non-finite core is a peripheral core modifier of the finite core, and the semantic relation between both cores (Van Valin .Jn 2022) is that of a simultaneous event.

There is no coreference in core junctures, only argument sharing (see Van Valin In 2022, 135-141), because coreference is a property of clausal linkage and thus distinct from argument sharing. In the examples below, with a transitive verb in the second core, there is no overt marking, but still, in (497), Pedro is the shared argument between 'go' and 'kill'.


Figure 10.13: Core cosubordination

```
(497)
Oso Pedro jawara jukaßo
o-so Pedro jawar-a juka-\betao
3-go Pedro jaguar-REF kill-GER
'Pedro goes to kill the jaguar / Pedro goes killing the jaguar.' (FA, 155)
```

The translations in (496a), (496b), and (497), contain three different interclausal semantic relations. One could argue that TUP violates the predicted relationship between the interclausal syntactic relations hierarchy and interclausal semantic relations due to the fact that different types of actions are expressed through the same nexus relations and same construction - in this case, core cosubordination. These include purposive actions (intention), simultaneous or sequential (multiple actions), and manner and position actions (modifying sub-actions) (see Van Valin Jr [2022, 65-67). ${ }^{\text {. }}$

In (497), jawara jukáßo 'killing the jaguar/to kill the jaguar' is linked at the core level through cosubordination with so 'go' forming a complex core. Example (497) shows formal asymmetry between the linked predicative units, since so 'go' is a verb covertly marked for tense (non-future), and jukáßo is, on the other hand, a non-finite form. This asymmetry is not, however, relevant in the model for the theory of nexus relations and juncture, since it does not contradict the requirement of symmetry between layers or strata (of a functional nature): so ‘go’ and jukáßo ‘killing, to kill’ are joined at the core level.

[^131]When a finite core with an M-transitive verb is joined by a gerund (nominalized core), the non-finite core, if M-intransitive, receives Set III indexes (see Table 4.3) signalizing coreference of the subjects (498).

Example (498b) is repeated from (496B).
a. Nasopotari
mamõ nepiri
witekoßo
jẽ
n-a-so-potar-i mamõ ne= $\varnothing$-piri wit-eko- $\beta$ o jẽ
NEG-1SG-go-want-NEG far $2 \mathrm{SG}=\mathrm{R}_{1}$-near $\mathbf{1 S G}_{\text {CORF }}$-be-GER PRCL
'I do not want to go far away in order to be near you.' (Poemas, 100)
b. Asausu sese wijemoririja
a-s-awsu [s-ese wi-je-moririj-a]
1SG-R2-love R $_{2}$-POSP $\mathbf{1 S G}_{\text {CORF }^{\prime}}$-care-GER
'I love her (while) taking care/and take care of her.' (Poemas, 182)

If the nominalized core is M-transitive, then, as already mentioned, there is argument sharing with the subject of the finite core. The direct, indirect, or oblique core argument obligatorily precedes the predicate of the nominalized core, either as a relational of noncontiguity (499a) or as an RP, as in (499b) ${ }^{100}$ and (499d). If the dependent predicate has three arguments, both direct and oblique or indirect core arguments precede it as in (499d).

```
a. Seroßjasare?ima potirõw ijißõjiß\tilde{mmo,}
    s-eroßjar-sar-e?im-a potirõ-w [i-ji }\beta\tilde{~}-\textrm{ji}\beta\tilde{0}-\beta\mathbf{0}
    R2
    ijukáßo
    [i-juka-\betao]
    R2-kill-GER
```

'Those who did not believe him worked together shooting arrows at him, killing him.' (Araújo, 3v)
b. Marã e?ipe ase karaiße $\beta$ marõana moŋeta $\beta$ o?

Marã e- $\mathrm{i} i=$ pe ase $[$ karai $\beta$ e $\beta$ e- $\varnothing$ o-arõ-ar-a mojeta- $\beta \mathbf{0}$ ]
what 3-say=Q we angel-REF CORF-guard-NMLZ $\mathrm{AG}_{\mathrm{AG}}$-REF speak-GER
'What do we say (when) praying to the guardian angel?' (Araújo, 23v)
$\begin{array}{lll}\text { c. } & \text { Serarõkatu } & \text { jepe, } \\ \text { fepiPa } & \text { pupe } \int \text { emima } \\ \text { jeporonatu } & \text { jepe } & {\left[\text { ne }=\varnothing \text {-piPa- } \varnothing \text { pupe } \int e=\varnothing \text {-mim-a }\right]} \\ 1 S G=R_{1} \text {-watch.over-INTS PRON } 2 S G=R_{1} \text {-heart } & \text { POSP } 1 S G=R_{1} \text {-hide-GER }\end{array}$

[^132]'Watch over me while hiding me in your heart.' (Poemas, 133)

```
d. Ojaßieteßepe kujã Tupã jeRena ... isupe
o-i-aßi-ete-\betae=pe kujã-\varnothing Tupã }\varnothing\mathrm{ -jePeŋ-a ... i-supe
3-R2-transgress-INTS-also=Q woman-REF God R1-word-REF ... R R2-DAT
oapisara amõ me?e\etaa
o-apisar-a amõ me?ey-a
CORF-friend-REF some give-GER
```

'Does a woman also transgress God's word (by) giving him some of her friends.'
(Araújo, 72)

In (500), there is nuclear cosubordination and core cosubordination, showing that different levels of juncture may occur within a sentence. Its representation is given in Figure (10.14)
(500) Para paßire imoingoßeje $\beta$ iri opiri serasó $\beta$ o Par-a pa $\beta$-ire i-mo-iko $\beta$-je $\beta$ iri o-piri $\quad$ s-era-so- $\beta$ o world-REF finish-after $\mathrm{R}_{2}$-CAUS-live-return CORF-near $\mathrm{R}_{2}$-SCAU-go-GER awjeramajẽne awieramajẽ=ne eternally=FUT
'After the end of the world, he will cause them to return to life, bringing them to himself for eternity.' (Araújo, 27)


Figure 10.14: Nuclear and core cosubordination in a sentence

Core cosubordination has often been associated with switch-reference (SR) in some descriptions of TG languages (e.g. Cabral and Rodrigues 2005; Rodrigues and Cabral 2012;

Silva and Cabral 2013; Dooley (2015) ${ }^{\text {D }}$. Switch-reference is exclusively a property of clausal junctures (see Foley and Van Valin Jr 1984, 257-258,276-277, Jacobsen Jr 1992, Roberts 1988, Kihara 2017, 150-151, and Hammond 2015). [1. In a switch-reference system, a particular syntactic or semantic function (see Van Valin Jr and LaPolla 1997, 287-288 and Van Valin In 2005, 101-107) is monitored (usually the pivot), and verbal affixes signal whether the RP which has that function in a particular clause is coreferential or not with the RP which has that same function in a syntactically related controlling clause. Switchreference is found mainly in predicate-final languages and it is canonically defined as an 'inflectional category of the verb, which indicates whether or not its subject is identical with the subject of some other verb' (Haiman and Munro 1983, ix). It is more common for SR to occur with finite verb forms, but there are cases of non-finite forms in SR, as in (van Gijn and Hammond 2016, 45), where the SR construction with a verb form reduced in inflectional potential encodes adverbial function, similarly to a converb (see also Nichols 1983, 245). The point to be made is that a variety of constructions have been referred to as SR (Haiman and Munro 1983; van Gijn and Hammond 2016).

It has already been said that the same construction, besides expressing purpose (a subject's intention to proceed with a course of action), also expresses a simultaneous action. Some examples of purposive clauses are given in (501]), and examples of simultaneous clauses are given in (502).

| a. Asopota | neretãme | neporaŋatu | rep $^{j}$ aka |
| :--- | :--- | :--- | :--- |
| a-so-pota | ne=r-etãma=pe | ne $=\varnothing$-poray-katu | r-ep ${ }^{j}$ ak-a |
| 1SG-go-want $2 \mathrm{SG}=\mathrm{R}_{1}$-land-POSP | $2 \mathrm{SG}=\mathrm{R}_{1}$-beauty-INTS | $\mathrm{R}_{1}$-see-GER |  |

'I want to go to your land in order to/and see your great beauty.' (Poemas, 92)
b. Tereju $\dot{i} \beta$ ate $\int$ ereraso $\beta o$
t-ere-ju i $\beta$ ate $\int e=r$-era-so- $\beta \mathbf{o}$
HORT-2SG-come height $1 \mathrm{SG}=\mathrm{R}_{1}$-CAUS.SOC-go-GER
'May you come in order to/and take me (with you) to heaven.' (Poemas, 102)

[^133]c. Aike witupa
a-ike wi-tup-a
1SG-enter $1^{\text {SG }}$ CORF-lay.down-GER
'I entered in order to/and laid down.' (VLB, I, 18)
(502)
a. Pitangĩamo ereiko, Tupãnamo eikoßoßé
pitang-ï-ramo ereiko Tupã-ramo e-iko- $\beta$ o- $\beta$ é
child-DIM-TRSL 2SG-be God-TRSL 2 SG $_{\text {CORF }}$-be-GER-also
'You are a little child being also God.' (Poemas, 100)
b. Ise oromojasuk Tußa, TaPira, Espírito-Santo ise oro-mo-jasuk $\quad \mathrm{t}-\mathrm{u} \beta-\mathrm{a}$, t -a?ir-a, Espírito-Santo
I 1SG.2SG-CAUS-wash $\mathrm{R}_{1}$-father-REF $\mathrm{R}_{1}$-son-REF holy-ghost
rera pupe wijáßo
r-er-a pupe wi-ja- $\beta \mathbf{o}$
$\mathrm{R}_{1}$-name-REF POSP $1 \mathrm{SG}_{\mathrm{CORF}}$-Say-GER
'I baptize you (while) saying: in the name of the father, of the son, and of the
holy spirit.' (DC, I, 200)
c. Neporangatu rawsupa tekoaii $\beta$ oromopo
ne $=\varnothing$-poran-katu $\quad$ r-awsu $\beta$-a t-eko-aRi $\beta$ oro-mo-por
2SG=R1-beauty-INTS R $R_{1}$-love-GER R ${ }_{1}$-life-bad 1PL.EXCL-CAUS-jump
'We throw away the bad life loving your great beauty.' (Poemas, 84)
d. Oiporaraßépe maße amõ aPepe ojkóßone?
o-i-porara- $\beta \mathrm{e}=$ pe maPe- $\varnothing$ amõ aPe-pe o-eko- $\beta \mathrm{o}=$ =ne $3-\mathrm{R}_{2}$-suffer-also $=\mathrm{Q}$ thing-REF other DEM-LOC $3-\mathrm{R}_{2}$-live-GER=FUT
'Will they suffer anything living there?' (Araújo, 47)

It is not common cross-linguistically for purposive clauses and modifying sub-actions to be expressed by the same construction ${ }^{[3]}$. While some sentences are in fact ambiguous, allowing both interpretations, such as (502c), (497), (498a), others clearly only allow one interpretation (502b), (502a), (501a).

RRG assumes that there is an iconic relation governing the interaction of syntax and semantics in clause linkage (see Van Valin Jr 2005, 205-213 and Van Valin Jr 2022). This relation is captured by the Interclausal Relations Hierarchy (IRH) (see Van Valin Ir

[^134]2()22, 63-69), capturing the thematic relations of clause linkage. The coding of different types of interclausal semantic relations by the same construction and the same juncture nexus does not seem to be common. The construction with the gerund in a core-juncture described above codes the following semantic relations in Van Valin .Ir (2022, 69): single actions (manner, position) (see e.g. 518), multiple actions (simultaneous, sequential), and intentions (purposive).
a) Single actions

1) Modifying sub-actions: manner
2) Modifying sub-actions: position
b) Multiple actions
3) Simultaneous
4) Sequential
c) Intentions
5) Purposive

TUP is very unusual in that it expresses different interclausal semantic relations through the same construction (nexus type).

It is also possible to have a core junction with more than one linked core, as in (503).

> a. Ojeaì $\beta \mathrm{ik}$ owasẽasemamo, omanõyatwa $\beta$ o ko?ite o-je-ai $\beta$ ik $\quad$ o-asẽ-REDUP-amo o-manõ-katu-aßo ko?ite 3-RFLX-low.the.head $\mathbf{3}_{\text {CORF }}$-cry-cry-GER $\mathbf{3}_{\text {CORF }}$-die-INTS-GER finally 'He lowered his head crying loud, finally dying.' (Araújo, 63v)
b. Angaipáßora ajuka feratápe seroPane angaipa $\beta$ - $\beta$ or-a $\quad$ a- $\varnothing$-juka $\quad \int e=r-$ ata- $\varnothing=$ pe $\quad$ s-ero- $\mathcal{2}$ ar=ne sin-HAB.AG-REF 1 SG-R 2 -kill $1 \mathrm{SG}=\mathrm{R}_{1}$-fire-R $\mathrm{R}_{1}$-LOC $\mathrm{R}_{2}$-SCAU-fall-FUT serasóßo, iPwaßo páne s-era-so- $\boldsymbol{\beta 0}$, i-qu-a $\beta$ o $\quad$ ра $\beta=$ ne $\mathrm{R}_{2}$-SCAU-go-GER $\mathrm{R}_{2}$-eat-GER all=FUT
'I will kill the sinners causing them to fall with me into my fire, leading them, eating them.' (Teatro, 94)

The non-finite core found in core subordination is a gerund. The gerund is defined by Haspelmath (1995) as a 'nonfinite verb form whose main function is to mark adverbial subordination' (Haspelmath [1995, 3). According to Haspelmath (1995), the gerund ('converb' in his terminology) has the following characteristics (see also Tikkanen 2001):

1. It is inherently subordinate, i.e., involved in subordinate constructions
2. Non-finite: it lacks specifications for tense, aspect, and mood
3. Adverbial nature: it mainly functions as a modifier, not an argument, and modifies clauses, not RPs
4. It is marked by an affix
5. It is often used in constructions that are coreferential with the subject of another clause
6. It may be the focus of a polar question

The TUP converb is marked by the suffix $-(a) \beta o \sim-a^{\text {[4] }}$ or by the loss of a final $r$. This form has also been referred to as a gerund in the literature (see densen 1998a, Rodrigues 2011 and Aikhenvald 2012, 312-314).

Bohnemeyer and Van Valin JI (2017) suggest that the Macro-Event-Property (MEP), which is a form-meaning mapping property, constrains the compatibility of event descriptions with time-positional modifiers. According to the MEP, the verbal core is the macroevent phrase. Simple cores have the MEP by default, while complex cores have it only in cosubordinate linkage. I have not found a clear example in TUP, parallel to the one in (504) from Bohnemeyer and Van Valin Jr $(2017,167)$, of the temporal peripheral modifier with scope over the complex core. There are examples of it preceding the complex core, but it seems that an intonational break is involved, indicating that the adverb is topicalized and

[^135]thus belongs in the PrDP. The most frequent attestation places the time adverb between the linked cores, as in (505a). The representation of (505b) is given in Figure 10.15.
(504) [ [ [ [ [Chris went] $]_{\text {Core }}$ to [see Pat] $]_{\text {Core }}$ today $\left.\left.\left.]_{\text {CORE }}\right]_{\text {PERIPHERY }}\right]_{\text {CLAUSE }}\right]_{\text {SENTENCE }}$

```
a. Sepe?a maPeaíßa swi kori Tupã remimotara
\inte=\varnothing-peRa maRe-ai\beta-a }\quad\varnothing\mathrm{ -swi kori Tupã r-emi-potar-a
1SG=R1-push.away thing-evil-REF R2-from today God R R1-RES-want-REF
rupi \intemoi\etaóßo
r-upi }\quad\int\textrm{e}=\varnothing\mathrm{ -mo-iko- }\beta\mathrm{ o
R1-according 1SG=R1-CAUS-be-GER
'Push me away from evil things today in order to make me be according to the
    will of God.'(DC, I, 190)
b. Jaso kori imomewaßo
    ja-so kori i-mo-me?u-aßo
    1PL.INCL-go today R2-CAUS-announce-GER
    'We go to announce him today.' (Poemas, 110)
```



Figure 10.15: Complex core with periphery in cosubordination

Cosubordination with the gerund is commonly found with the permissive mood, as in (506a):

| a. Tasaßeipóne | Para | mokajema... |
| :--- | :--- | :--- |
| t-a-saßeipo=ne | Par-a | mo-kajem-a |
| HORT-1SG-get.drunk=FUT | understanding-REF | CAUS-hide-GER |

'May I get drunk in order to lose my understanding.' (DC, II, 103)

> b. Tafemaran umẽ iwaßo $\begin{aligned} & \text { t-fe }=\varnothing \text {-maran } \\ & \text { umẽ } i \text { i-pu-aßo } \\ & \text { HORT-1SG=R } \\ & 1\end{aligned}$-ill NEG $\mathrm{R}_{2}$-ingest-GER 'May I not fall ill eating it.' (Araújo, 21v)

The core juncture with the gerund is also attested expressing cause, although less frequently, as in (507), which is given as an answer to 'Why is the cross the sign of the Christians?'
a. Ipupe omanõmo janejara
Jesus Cristo
i-pupe o-manõ- $\beta$ o jane $=\varnothing$-jar-a Jesus Cristo
$\mathrm{R}_{2}$-in 3-die-GER 1PL.INCL=R $\mathrm{R}_{1}$-lord-REF Jesus Christ
‘(Because) Our Lord Jesus Christ died on it.' (DC, I, 186)
b. Jesus Cristo omenare?imaRep ${ }^{\text {w }}$ era reko jaße oikopota

Jesus Cristo o-menar-e?im- $\beta$ aPe-p ${ }^{\text {w }}$ er-a r-eko jaße o-iko-pota Jesus Christ 3-marry-PRIV-REL-PST-REF $\mathrm{R}_{1}$-be like 3-be-want.GER
'For wanting to live like Jesus Christ who also wasn't married.' (DC, I, 224)

Although the finite core more often precedes the non-finite core in the texts, the opposite order, as in (508), is also possible and does not seem to be marked. Based on the texts and supported by a comparison with other TG languages, especially Old Guaraní, there is no doubt that the non-finite core more often followed the finite core ${ }^{[\boxed{ } 3]}$.
a. Wisoßo
aso
wi-so- $\beta \mathbf{0} \quad$ a-so
1 SG $_{\text {Corf }}$-go-GER 1SG-go
'I go in order to stay.' (VLB, II, 41)
b. Witu ajur
wi-tu a-jur
1 SG CORf-come.GER 1SG-come
'I came to stay / I came and I stayed.' (VLB, II, 41)

In (509), the comma seems to indicate a pause following the fronted core and the discourse particle, which would place the dislocated syntagma in the detached position. This

[^136]fronting is not like the one in (508), but one to a more topical position (PrDP). Whether this (dislocation with a pause) is a calc of a similar construction in Portuguese cannot be asserted with certainty.


The presence of the discourse particle is not necessary for placing a constituent in the PrDP as long as it is set off by a pause, as in (510).

|  | Tupana kuwapa, | kori asausu | Sejara | Jesu |
| :---: | :---: | :---: | :---: | :---: |
|  | Tupana kuwa $\beta$-a, | ko?i a-s-awsu | $\int \mathrm{e}=\varnothing$-jar-a | esu |
|  | Go |  | $1 \mathrm{SG}=\mathrm{R}_{1}-$ |  |

'Knowing God, I now love my lord Jesus.' (Poemas, 106)
b. Tapujpepofi moripa, tupotare?imi ike
tapuj-pe-pofi mo-oriß-a t-u-potar-e?im-i ike
slave-dAT-evil CAUS-amuse-GER R $_{2}$-come-want-PRIV-NFOC here
'Amusing themselves with slaves, they did not want to come here.' (Teatro, 16)

In (51]), the non-finite core in each example is in the PrCS as the focus of a polar question, and thus within the scope of the IF operator.
a. Ejemomewáßope erejur feraPit?
e-je-mome?u-a $\beta \mathbf{0}=$ pe ere-jur $\quad$ e $=$ r-aPir
2 SG $_{\text {Corf }}$-RFLX-confess-GER=Q 2 SG-come 2 SG=R 1 -son.vOC
'Is it in order to confess that you came, my son?' (DC, II, 77)
b. Marã ojáßope irajtitataendi me?éni ase pópe?
Marã o-Yi-aßo=pe irajti-tata-endi- $\varnothing$ me?én-i ase pó- $\varnothing$-pe
what 3 -say-GER=Q wax-fire-shine-REF give-NFOC PRON hand-REF-POSP
'By saying what he puts a candle in our hands?' (DC, I, 204)

Since core junctures are within the scope of the clausal operators, as with tense, there can be only one IF operator. In (52a), the IF is interrogative, and it is imperative in (512b):
(512) a. Erépe nerekoposip ${ }^{\mathrm{w}} \mathrm{e}$ momoraja?
er-Re=pe ne=r-eko-pofì-p ${ }^{\text {w }}$ er mo-poray-a
2SG-say-Q 2 SG=R $R_{1}$-be-evil-PST CAUS-beauty-GER
‘Did you say it while celebrating your evil behavior?' (cf. DC, II, 93)
b. Ejori orerese nememira mojeta $\beta$ o
e-jori ore $=$ r-ese ne= $\varnothing$-memir-a mojeta- $\beta$ o
2SG.IMP-come 1SG.EXCL R $1_{1}$-son-REF talk-GER
'Come, in order to talk to your son about us.' (Poemas, 82)

Since the linked cores are inside the clause, they depend on the clause for tense. In (513), the clause is overtly marked for tense:

| (513) | Tame?ẽne pira | rußa | ené $\beta$ o, |
| :---: | :---: | :---: | :---: |
|  | t-a-me?ẽy=ne pira- $\varnothing$ | r-u -a | ene $=\beta$ o, |
|  | HORT-1SG-give=FUT fish-REF $\mathrm{R}_{1}$-egg-REF 2 SG=DAT |  |  |
|  | wijepime?eja |  |  |
|  | wi-je-epi-meRey-a |  |  |
|  | $1 \mathrm{SG}_{\text {CORF }}$-RFLX-pay-give-GER |  |  |
|  | 'May I give you fish eggs to rep | pay (you).' | atro, 46) |

Tense can be marked on the finite verb, as in the examples above. In (54), it appears attached to both verbs. This is a very rare case and should not be taken as evidence that the non-finite core may be independently marked for case. It seems, based on the translation of the example, that the second future simply emphasizes the tense already marked on the main verb.

(Poemas, 157)

The future marker appears most frequently attached only to the gerund, in sentencefinal position, as in (515). Only a discourse particle may follow the tense marker in sentencefinal position, as in (515b).
(515)
a. Ere sep ${ }^{j}$ akane
ere-Re s-ep ${ }^{j}$ ak-a=ne
2 SG-say $_{2}$-see-GER=FUT
'You shall see and believe (lit. you will say, seeing it).' (FA, 159)
b. ARe ipo maPe repiramo ojmoarißeukar Seswi,
aPe ipo maPe- $\varnothing$ r-epi-ramo o-i-mo-ariße-ukar $\int e=\varnothing$-swi
PRCL ADV thing-REF $\mathrm{R}_{1}$-payment-TRSL 3 - $\mathrm{R}_{2}$ CAUS-quiet-CAUS $1 \mathrm{SG}=\mathrm{R}_{1}$-from femop ${ }^{\text {w }}$ erápane rea
$\int e=\varnothing$-mo-p ${ }^{\text {w }}$ era $\beta$-a=ne rea
$1 \mathrm{SG}=\mathrm{R}_{1}$-CAUS-heal-GER=FUT PRCL
'Certainly, he will spare me as a reward of something, healing me.' (Araújo, 96v)

There are some apparent cases where a nominalized core takes the future clitic without the presence of a finite verb, but this is due to the presence of particles that require the gerund, like memetipo in (516a) and $k a$ in (56a):
(516) a. Memetipo ase isupe ojerokiaßone? memetipo ase i-supe o-je-roki-a $\beta \mathbf{0}=\mathbf{n e}$ even.more we $\mathrm{R}_{2}$-to 3 -RFLX-bow-GER=FUT 'Will we indeed bow to her?' (Araújo, 31)
b. Te?ijẽne ojkóßo ka!

Te?inẽ=ne o-eko- $\boldsymbol{\beta o}$ ka PRCL=FUT 3-be-GER PRCL
'Let him be!' (VLB, I, 92)

The only possible instance of clausal cosubordination I found is given in (517), where the tense operator seems to be shared by both clauses.
a-ero-jan a-ro- $\beta$ e $\beta$ e=ne
1SG-SC-run 1SG-SC-fly=FUT
'I will make them run with me, will make them fly with me.' (AT, 42)

Core-subordination is often used to indicate the position of actors while performing an action, i.e., whether they are standing, lying down, or sitting. Such constructions have often been said to involve positional auxiliaries, but they are no different from any other gerund nominalized core involved in core subordination. TUP does not have grammaticalized
auxiliaries, as all positional auxiliaries are lexical roots. The lexical roots that may indicate the position of actors in TUP are (j)u $\beta$ 'lay/lie', (518), iko 'be, be moving' (519), in 'sit down' (520), ku $\beta^{\boxed{66}}$ 'be' (without reference to posture) (521).
a. Asasa $\beta$ pe witupa
a-s-asa $\beta$ pe- $\varnothing$ wi-tup-a
1SG-R2-cross path-REF $1 \mathrm{SG}_{\text {CORF }}$-lay.down-GER
'I occupy the path (lying down).' (VLB, I, 47)
$\begin{array}{ll}\text { b. } \begin{array}{l}\text { Ajepiso } \\ \text { a-je-piso }\end{array} \quad \text { witupa } \\ & \text { wi-tup-a }\end{array}$
1SG-RFLX-stretch 1SG CORF-lay.down-GER
'I am stretched (while laying down).' (VLB, I, 129)
c. Erekepipo ejupa?
ere-ker=pe-ipo e-ju $\beta$-a
2 SG-sleep=Q-really 2 SG $_{\text {CORF }}$-lie.down-GER
‘Were you really sleeping?' (Teatro, 12)
a. Seresaraj e witeko $\beta o$
fe=r-esaraj e wit-eko- $\beta \mathbf{0}$
$1 \mathrm{SG}=\mathrm{R}_{1}$-forget PRCL $1 \mathrm{SG}_{\text {CORF }}$-be-GER
'I in fact forget it (while being/doing something).' (AP, 182)
b. Ajeroßjapirib
witekoßo
wit-iko- $\beta$ o
a-je-ro $\beta$ ja-pirib
1SG-RFLX-arrogant-somewhat $1 \mathrm{SG}_{\mathrm{CORF}}$-be-GER
'I am (being) somewhat arrogant.' (VLB, I, 33)
(520) Ajemope $\beta$ witena
a-je-mo-pe $\beta$ wit-in-a
1SG-RFLX-CAUS-flat $1 \mathrm{SG}_{\mathrm{CORF}}$-Sit-GER
'I am squatting.' (VLB, I, 23)
(521)
a. Nepo
wirỉßo paßẽ torojenon
ne $=\varnothing$-po- $\varnothing \quad$ wiriß $\beta$ ра $\beta$ ẽ t-oro-je-noŋ
$2 \mathrm{SG}=\mathrm{R}_{1}$-hand-REF POSP all HORT-1PL.EXCL-RFLX-put
orojupa nememiramo orokupa
oro-ju $\beta$-a ne= $\varnothing$-memir-amo oro-kup-a
1PL.EXCL-lay.down-GER $2 \mathrm{SG}=\mathrm{R}_{1}$-child-TRSL 1PL.EXCL-be-GER

[^137]'May we (laying down) put ourselves under your hands, being as your children.' (Poemas, 148)

```
b. Tjaso ke jawapika
t-ja-so ke ja-wapik-a
HORT-1PL.INCL.CORF-go PRCL 1PL.INCL.CORF-sit-GER
jakupa
ja-ku\beta-a
1PL.INCL.CORF-be-GER
'Let's remain seated (lit. let us go sitting being).' (Teatro, 146)
```


### 10.3 Complex RPs

Complex RPs may contain complex modifiers such as genitives, possessives, and relative clauses as part of modification (Dryer 2007, 151; Van Valin Ir and LaPolla 1997, 492). These complex modifiers co-occur with simple modifiers in RPs, as the previous sections have shown.

The structural similarities between the LSC and the LSRP are strengthened by the application of the theory of clause linkage, juncture, and nexus (see Chap. (0) to the analysis of complex RPs. This allows the analysis of complex RPs to reflect that of complex sentences, although there are fewer RP junctures because the RP has fewer layers than the clause. The RP level is the maximal layer, followed by the $\operatorname{CORE}_{R}$ and the $\mathrm{NUC}_{\mathrm{R}}$ which make up the RP junctures. The three nexus relations - coordination, subordination, and cosubordination - can be applied to the analysis of complex RPs. The RP layer is compatible with all three juncture-nexus types.

### 10.3.1 Coordination

Coordination involves the linking of two or more coordinands, which are independent units that may be joined by coordinators (syndetic) or by simple juxtaposition (asyndetic) (Haspelmath 2004). Distinctions are usually made between three semantic types of coordinate constructions: conjunctive coordination (additive), disjunctive coordination, and adversative coordination.

Syndetic conjunctive coordination is expressed with the additive conjunction/adverb $a \beta e ́$ 'and, also ${ }^{\text {, }}$, which occurs after the coordinands. The position of this coordinator, [A] [B co], where $A$ and $B$ stand for two coordinands and co stands for the coordinator, is the least frequent type cross-linguistically according to Haspelmath (2004, 6). Aßé only connects RPs, never clauses.

The examples in (522) are cases of RP-level coordination, since no operator dependence is involved:
a. $[\mathrm{S} \text {. Pedro }]_{\text {coordinand }},[\text { São João }]_{\text {coordinand }}[\mathrm{a} \beta \text { é }]_{\text {coordinator }}$

S(aint) Pedro Saint João aßé
S(aint) Peter Saint John CONJ
'Saint Peter and Saint John.' (AC, 55)
b. Iawasa- $\beta$ aRe omenasaße?ima rese
$[\mathrm{i} \text {-awasa- } \beta \text { aRe }]_{\text {coordinand }}[\mathrm{o}-\mathrm{mena-sa} \beta$-e?im-a r-ese
$\mathrm{R}_{1}$-concubinage-NMLZ COREF-spouse-NMLZ-NEG-REF $\mathrm{R}_{1}$-POSP
ojkoßare aße
o-jko- $\beta$ aPe $]_{\text {coordinand }}[\mathbf{a} \beta \mathbf{e ́}]_{\text {coordinator }}$ 3-be.with-NMLZ CONJ
'The one in concubinage and the one who lives with whom is not his/her spouse.'
(Araújo, 71)
c. Enéte, neresemõ [arijama $]_{\text {coordinand }},[\text { tajasu }]_{\text {coordinand }}$ ene-te ne=r-esemõ- $\varnothing$ arijama tajasu 2SG-FOC 2SG=R1-left.over-REF bird peccary
'To you, though, there remain birds and peccaries.' (AP 152)


Figure 10.16: RP coordination

[^138]A reduced form of $a \beta e,-\beta e$, can be suffixed to a word. This was possibly used as a prosodical resource. The syntactic representation is given in Fig. 10.16.
a. Tosarõ paPi Jesu Jeretama, neaßé
t-o-sarõ paßi Jesu $\int$ e=r-etam-a, ne aßé
HORT-3-keep lord Jesus 1SG=R1-land-REF 2SG CONJ
'May lord Jesus watch over my land and you as well.' (Poemas, 112)

It is also common not to use a conjunction, i.e., simple juxtaposition, as in (525):
(524) [Moropotara $]_{\text {coordinand }}$, [tesajnana $]_{\text {coordinand }},[\text { marãPe }]_{\text {coordinand }},[\text { mosarõ }]_{\text {coordinand }}$ moro-potar-a t-esajnan-a marã-?e monarõ- $\varnothing$ ANTIP-desire-REF $R_{2}$-lust-REF evil-say theft-REF
[moPema $\left.]_{\text {coordinand }} \beta \mathrm{e}\right]_{\text {coordinator }}$
moRem-a $\quad \beta$ e
lie-REF CONJ
'Sexual desire, lustful malediction, theft, and lies.' (AT, 150)
(525) KaPu, awasanemp ${ }^{w}$ era, temoPema, marã Re, ka?u- $\varnothing \quad$ awasa-nem-p ${ }^{\text {w }}$ er-a t-emo?em-a marã e - $\varnothing$ beer.drink-REF concubinage-stench-PST-REF $R_{2}$-lie-REF evil say-REF joapisaßa, maranwera
jo-api-sa $\beta$-a maran-p ${ }^{\text {w }}$ er-a
REC-hit-NMLZ-REF war-PST-REF
'Beer drinking, the old fetid concubinage, the lies, the ill saying, the mutual wounds, the old wars.' (AT, 190)
(526) Tosarõ paPi Jesu Jeretama, neaße t-o-sarõ paßi Jesu $\int e=r-e t a m-a \quad n e-a ß e$ HORT-3-keep lord Jesus 1SG=R1-land-REF 2SG-CONJ
'May lord Jesus watch over my land and you as well.' (Poemas, 112)

The adverb/conjunction $a \beta e$ never links clauses, only RPs or PPs. An examples of its linking to two PPs is given below:

(527) | Oka | ripijawáma | rese | ajana | mojewasemawama |
| :--- | :--- | :--- | :--- | :--- |
| ok-a | r-ipija-wám-a | r-ese | ajaŋ-a | mo-jewasema-wam-a |

'For sprinkling the house and for expelling the devil.' (DC, I 222)

Disjunctive coordination presents the elements in the construction as being alternatives to each other. Disjunctive coordination in TUP is either expressed using kojpó or konipo ${ }^{\boxed{18]} \text {. Disjunctive coordination appears to be similar to alternative questions (Croft }}$ 2022a, 436), so they are often co-expressed. Table 10.1$]$ shows the frequency of both forms in the texts ${ }^{\text {國 }}$. An interesting pattern emerges: while kojpó is more frequent in most texts, it is significantly less frequent in DC I, with konipo $85 \%$, and kojpó $14 \%$.

| Source | Kojpo | konipo |
| :---: | :---: | :---: |
| Poemas | 0 | 0 |
| Teatro | 1 | 1 |
| DC I | 1 | 6 |
| DC II | 9 | 0 |
| Araújo | 102 | 2 |
| Camarões (1,2,3) | 2 | 0 |
| Betendorf | 19 | 0 |
| Total | 134 | 9 |

Table 10.1: Frequency of kojpo and konipo
a. Ene konipo ise?
ene konipo ise
you or I
'You or I?' (VLB, II, 60)
b. Anira ruãpe e, panama kojpo wajkuika?
anira- $\varnothing$ ruã=pe e panama- $\varnothing$ kojpo wajkuika-REF bat-REF PRCL=Q PRCL butterfly-REF or opossum-REF
'Is it, actually, a bat, a butterfly, or an opossum?' (AT, 44)
c. Mamõ serã $\quad$ esówne, konipo i $\beta$ akipe, konipo Ajanga
mamõ serã $\quad \int \mathrm{e}=\varnothing$-so-u=ne konipo $\dot{\text { i } \beta \text { aki-pe konipo Ajanga }}$
where by.the.way $1 \mathrm{SG}=\mathrm{R}_{1}$-go-NFOC=FUT or sky-LOC or Devil
r-ata-pe-no?
rata-pe-no
$\mathrm{R}_{1}$-fire-LOC-PRCL

[^139]'Where, by the way, shall I go? To heaven or to the devil's fire?' (DC, I, 221)
d. Eresuŋápe nerige nememira jukáßo
Ere-s-uŋa=pe ne=r-ge- $\varnothing \quad$ ne $=\varnothing$-memir-a juka- $\beta$ o
$2 \mathrm{SG}=\mathrm{R}_{1}$-touch=Q $2 \mathrm{SG}=\mathrm{R}_{1}$-wom $\beta$-REF $2 \mathrm{SG}=\mathrm{R}_{1}$-son-REF kill-GER
ijukapota? Kojpo ere?upe maRe amõ
i-juka-pota Kojpo ere-?u=pe maRe- $\varnothing$ amõ
$\mathrm{R}_{2}$-kill-want.GER or $2 \mathrm{SG}=$ ingest=Q thing-R ${ }_{1}$ other HORT-3-die
tomanõ Seswi ejaßo?
t-o-manõ $\quad \int \mathrm{e}=-\varnothing$-swi Re -a $\beta$ o
$1 \mathrm{SG}=\mathrm{R}_{1}$-POSP say-GER
'Did you touch your belly killing your son or did you ingest something saying may he die coming out of me?' $(\mathrm{AC}, 102)$

In (529), the lexical root ap亡்atã modifies kujã with a non-restrictive nominalization (RP periphery) - assuming the hearer knows who is being referred to - in the nuclear periphery, which modifies the RP as a whole since it, like non-restrictive clauses, has independent IF (see Van Valin Jr 2022, 41). The representation of (529) is given in Figure (110.17). This is a subordinate RP construction.

| Kujãpiatã | ißakipenwara |
| :--- | :--- |
| kujã-piatã- $\varnothing$ | ißak-pe-nwar-a |
| woman-strong-REF | sky-LOC-NMLZ-REF |

'A strong woman who is in heaven.' (Poemas, 126)


Figure 10.17: RP subordination

Example (530) shows an RP with a proper noun, which has no layered structure (cf. Van Valin Jn 2005, 222). It has an RPIP and two peripheries, and is modified by an RP which contains an RPIP with conjoined periphery units, resulting in a coordinate RP juncture-nexus type. Its syntactic representation is given in Figure 10.]8. The RP modifying
the RP with the proper noun is similar to a non-restrictive relative clause because it adds information about the head noun. This is a case of RP subordination because the RP pari Tupã rawsupara functions as an adjunct at the RP level.
(530) Ako Ana wajß $ß \tilde{i}$ rainha, paßi Tupã rausupara
ako Ana waj $\beta \tilde{i}$ rainha paßi Tupã r-awsu $\beta$-ar-a
DEM Ana old queen lord God $\mathrm{R}_{1}$-love- $\mathrm{NMLZ}_{\mathrm{SG}}$-REF
'That old queen Ana, who loves God / lover of God.' (Teatro, 168)


Figure 10.18: RP subordination

### 10.3.2 Relative clauses

A typical example of RP subordination is the restrictive relative clause, in which a clause is used as a restrictive modifier of an RP. The modifying clause is hosted in the periphery, since it is an optional modifier. In TUP, since the head noun is outside the relative clause, the relative clause is externally-headed (see De Vries 20(02).

As seen in Section [8.3], the nominalizer - $\beta a$ ?e is often used as an RP modifier (relativizer) which restricts the interpretation of the RP head, as in (531]). The nominalized clause oporomonij $\beta$ a $2 e$ is a peripheral modifier of the RP $t$-eko, which is an argument of the predicate $s$-eta. The representation of (531]) is shown in Figure ([0]9).

```
(531) Seta teko oporomonijßaPene
    s-eta t-eko- }\varnothing\mathrm{ o-poro-monij- }\beta\mathbf{aPe=ne
    R2
```

'There are be many things that will frighten us.' (Araújo, 159v)


Figure 10.19: Relative clause or RP subordination

The scope of the clitic $=n e$ in (531) is over the main predicate only. If the nominalized clause were to be marked for tense, it would receive the nominal future-tense marker -ram (see Section [.3.1.), as in (532).

```
Aroßjar tekoße opaßa?erame?ima
a-roßjar t-ekoße- \(\varnothing\) opa- \(\beta\) аРe-ram-e?im-a
1SG-believe \(\mathrm{R}_{2}\)-life-REF finish-NMLZ REL-FUT-PRIV-REF
'I believe in the life that will not end.' (DC, I, 142)
```


### 10.3.2.1 Restrictive relative clauses

A relative claus ${ }^{200}$ is a clause inside an RP that provides more information about the referent of the head of the RP (restrictive). The head of an RP is coreferent with an argument of the predicate within the relative clause (henceforth RC ), but that argument is 'missing' from the RC and the head noun controls its identity. This type is not available in Tupinambá, since the modifier of the RP-head is always a nominalized clause (also an RP).

Restrictive relative clauses, as the name suggests, restrict the interpretation of the referent of the matrix clause. They are non-argument, peripheral modifiers of the nominal and

[^140]thus a case of nuclear ${ }_{N}$ subordination. The modifier in this case is a clause nominalized by $-\beta a P e^{[2]}$. This is illustrated in (533) with its syntactic representation given in (10.20).
(533) Pitana mokõj rôi omoawie $\beta$ aRe pitay-a mokõj roPi- $\varnothing$ o-mo-awie- $\beta$ aPe child-REF two year-REF 3-CAUS-complete-NMLZ
'The children who complete two years (of age).' (Araújo, 10v)


Figure 10.20: Restrictive relative clause

The relativization strategy employed in Tupinambá is nominalization, a strategy not accounted for either by formalists (De Vries 2002; Keenan and Comrie 1977, 1979; Comrie and Keenan 1979) or by functionalists (Cristofaro 2005; Song 2014) (see Lehmann 1984, 149-153).

| Omemira | Tupã apia $\beta$ amo gwigépe | ojemojaŋji $\beta$ aPe |
| :--- | :--- | :--- |
| O-memir-a | Tupã apia $\beta$-amo o-ge=pe | o-je-mojay- $\beta$ aPe |
| 3CORF-son-REF | God man-TRSL | 3CORF-wom $\beta$-POSP |
| 3-RFLX-make-NMLZ |  |  |

```
'(Maria) wishes earnestly to see the birth of her own son who generates himself as a human being in her womb.' (Araújo, 9-9v)

\footnotetext{
\({ }^{21}\) The similarity of the clause nominalizer - \(\beta a\) ?e with the word -ma?e 'thing' allows for a conjecture regarding the origin of the nominalizer. The nominalization path from 'thing' to nominalizer is known from other languages (see Kuteva et al [2019, 433-434). The use of nominalization as a strategy for subordination 'is significantly more pervasive in South America than would be predicted on the basis of global patterns' (Van Gijn 2014, 274)
}
```

(535) i \betaakipe karaißeße marayatußaPe opitaßaRepwera
i }\beta\mathrm{ ak=pe karai- }\beta\textrm{e}\beta\textrm{\beta}-\varnothing\mathrm{ marayatu- }\beta\mathrm{ aPe o-pit- }\beta\mathrm{ aPe-pwer-a
sky-POSP white.person-fly-REF kindness-NMLZ REL 3-stay-NMLZREL-NPST-REF
rußisaßa
r-ußisa }\beta\mathrm{ -a
R1-chief-REF

```
'Chief of the angels that are good, that remained in heaven.' (Araújo, 8v)
(536) Aŋwera aPepe turrama osarõ ßaPe
ay-wer-a arepe t-ur-ram-a o-s-arõ- \(\beta\) aPe
soul-PST-REF there \(\mathrm{R}_{2}\)-come-FUT-REF 3 - \(\mathrm{R}_{2}\)-wait-NMLZ
'The souls that waited there for his future return.' (DC, I, 150)

Regarding the accessibility hierarchy indicating which RP positions can be relativized, (Keenan and Comrie 1977; Comrie 1981), some examples are given below which are illustrative of the possibilities in TUP.
a. Subject relativized
```

Apiaßa kujã rese oeko osaPanjepéßaRe
арiаßа kujã-\varnothing r-ese o-eko o-s-aPay-jepe-\betaaPe
man woman-REF R R-wITH 3-be 3-R2-attempt-in.vain-NMLZ REL
ne?ikatui omena
n-eRi-katu-i o-mena
NEG-can-NEG CORF-marry

```
'The man who tries in vain to have sexual intercourse with a woman cannot get married.' (AC, 131v)
b. Aokerejua \(\mathrm{k}^{\mathrm{w}}\) arasi sose oßeraßaPe nupara ao( \((\beta)\)-kerejua \(k^{w}\) arasi- \(\varnothing \quad-\varnothing\)-sose o- \(\beta\) era \(\beta\) - \(\beta\) aPe nuyara clothes banded.cotinga sun-REF R \(_{1}\)-above \(\quad 3\)-shine-NMLZ REL \(^{\text {R }}\)
similar
'Similar to a garment made of a banded cotinga feathers \({ }^{[2]}\) that shines more than the sun.' (AC, 37v)
(538) Apposition

\footnotetext{
\({ }^{22}\) Cotinga maculata is a species of bird from southeastern Brazil whose feathers shine intensily.
}
a. \(\dot{i} \beta \dot{i}\) apiteripe tataamõrore owe \(\beta\) aRerame?ima
\(\dot{\mathrm{i}} \beta \dot{\mathbf{i}}-\varnothing\) apiteri-pe tata-amõrore- \(\varnothing\) o-we \(\beta\) - \(\beta\) aPe-ram-e?im-a earth-REF middle-LOC fire-eternity-REF 3-extinguish-NMLZ-FUT-PRIV-REF mojanga
mojay-a
make-GER
'In the middle of the earth making an eternal fire which won't be extinguished.'
(AC, 38)
b. i \(\beta\) itira Oliuete seri \(\beta\) ape apira \(\operatorname{Pari} \beta\) o i \(\beta\) itir-a Oliuete s-er-i- \(\beta\) aPe apir-a \(\quad\) Par-i- \(\beta\) o mount-REF Olivet \(\mathrm{R}_{2}\)-name-EPEN-NMLZ REL ridge-REF over-EPEN-TRSL
osi oßoja rerasow
o-sì- \(\varnothing \quad\) o- \(\beta\) oja- \(\varnothing \quad\) r-era-so-w
CORF-mother-REF CORF-disciple-REF R2-SCAU-go-NFOC
'He took his mother and his disciples above the peak of the mountain called
Oliuete.' (AC, 4v)

Direct Object relativized
a. Amõ \(\uparrow \mathfrak{i} \beta \mathrm{a}\) wemitima piteripe o?ambaRe kuaßeRenga amõ \(\operatorname{~ì~} \beta\)-a o-emitim-a piterí-pe o-Ram-baRe kuaße?eŋ-a other tree-REF CORF-garden-REF middle-LOC 3-stand-NMLZ show-GER
'Showing him a certain tree that stood in the middle of his garden.' (AC, 39v-40)
b. Aroßjar Tupã Tußa, opakatumba?e tetiruã mojaja a-roßjar Tupã T-u \(\beta\)-a, opa-katu-mbaße- \(\varnothing\) tetirwã mojay-a 1SG-believe God \(\mathrm{R}_{4}\)-father-REF all-INTS-thing-REF any make-GER eRikatußaRe
e-Ri-katu- \(\beta\) aRe
3-say-INTS-NMLZ \(Z_{\text {REL }}\)
'I believe in God the father, the one who can do all and anything.' (Ar., Cat., \(14 v)\)

NiporangỉßaPe ruã aPe tata. sun, ipofí,
n-i-poray-i- \(\beta\) aRe ruã aRe tata- \(\varnothing\) s-un, i-pofi
NEG-R 2 -beauty-EPEN-NMLZ REL NEG DEM fire-REF \(R_{2}\)-dark \(R_{2}\)-ugly
oporoapiete \(\beta\) aRe
o-poro-api-ete- \(\beta\) aRe
3-ANTIP-burn-EMPH-NMLZ \({ }_{\text {REL }}\)
'That fire isn't beautiful. It is dark, it is ugly, it is the one which intensively burns people.' (AC, 163v)
\(\begin{array}{llllll}\text { (541) } & \text { Orojerure } & \beta \mathrm{e} & \text { nerese } & \text { tojemeRen } & \text { apiaßanaturama } \\ \text { oro-jerure } & \beta \mathrm{e} & \text { ne=r-ese } & \text { t-o-je-meRen } & \text { apia } \beta \text {-anaturam-a }\end{array}\)
'We also ask you that they give us good men as inhabitants of our land, and wise priests who know God's law.' (D'Abbeville, Histoire, 342)

\section*{Conclusion}

The previous chapters have attempted to describe the grammar of TUP in a typologically adequate manner while making use of a modern linguistic framework. I have tried to avoid what I consider to be a frequent mistake in the past, where authors describing TG languages seem to have used previous descriptions of TG languages as templates.

In the introduction is a short prolegomena to the study of TUP, paving the way for anyone interested in the topic. It contains information on the people and the language, including a short typological profile, as well as details of the primary sources used and a short summary of previous work on the language. It also contains some comments of a socio-linguistic and ethnographic nature regarding the gender-exclusive distinctions in male and female dialects.

The chapter on phonology was a first attempt to review Rodrigues' work on the topic, which was not accessible to many because it was written in German. Furthermore, I have tried to improve the phonological description based on my knowledge of the language, which resulted in a phonological inventory somewhat different than that found in previous works, e.g., with the treatment of the phones \([\mathrm{J}]\) and \([\mathrm{n}]\) as surface representations. I have also attempted to provide an overview of syllabic and stress patterns by reviewing Rodrigues (1958b).

In Chapter 3, I briefly introduced the framework employed to describe the language, RRG, as a syntax-semantics-pragmatics interface. While languages of different language
families have been described using RRG, this is the first South American language to be described within this framework.

The morphological and syntactic discussions are spread from chapters 4 to 10 and shed some light on the morphosyntax and typology of TUP. Some topics were not discussed in depth because they would require a change in the course of the work, leading to a discussion of theoretical aspects of language or typology, which would be less focused on the language itself. This should not be interpreted as an excuse; rather, it is a consequence of the somewhat small corpus of the language, which is restricted to religious texts.

Particularly important is the treatment of word classes in Chapter 团, in which, instead of arguing for the existence or lack of a certain word class, I adopt a typological approach based on the idea of comparative concepts, which allows for an approach to word classes that is language-specific but still captures cross-linguistic generalizations. This approach depends on the idea of speech act functions combined with semantic classes, thus allowing language-specific constructions to define word classes. This is in line with current typological and constructional approaches, although the idea is not a recent one.

Another significant morphosyntactic aspect of this work lies in the treatment of bound indexes exclusively analyzed as possessor indexes, never as absolutive markers, as has been suggested for Tupí-Guaraní languages. As a consequence of the non-existence of absolutive markers, no person hierarchy must be assumed.

In Chapter 5, I laid out the basics of clause patterns and valency operations affecting it. A more in-depth analysis of the clause is presented in Chapter 6. Chapter 7 considers lexical categories and further morphosyntactic topics. The reference phrase is discussed in Chapter 8 and is followed by a chapter on information structure, discussing the pragmatics of some constructions. In this chapter, I argue against the so-called indicative-II or oblique-topicalized interpretation of a characteristic TG construction, that of fronted adverbials. Here, it is analyzed as a construction in which the main predicate loses its focal status as an adverbial expression and is fronted to a topical position, thus becoming the main predicate. Finally, Chapter 10 presents the types and levels of clause juncture in TUP,
a topic that is rarely treated in grammars of TG languages. The discussion of complex sentences has shown, among other things, that a particular type of clause linkage, cosubordination, is very common in TUP, especially at the core level, with nominalized cores (gerund constructions).

I certainly do not regard this description as complete. I would like to have discussed some aspects that require a digitally available corpus, enabling a quantitative analysis of phenomena such as word order, information structure, and variations in patterns. In this sense, I wait for the completion of the online Tupinambá treebank, available through the Universal Dependencies Project (UD), which would greatly contribute to this research. The treebank would also allow for the inclusion of TUP not only in comparative studies within the Tupían family, but also within other language families on UD.

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[^0]:    ${ }^{1}$ See the vivid description of this encounter in Bueno (2016).

[^1]:    ${ }^{2}$ From Cananeia southwards, the Guaraní occupied the coast as far as Lagoas dos Patos and the ParanáParaguay basin. The language of the Guaraní, based on its first attestations, was certainly intelligible to the coastal Tupinambá speakers (see Anchieta 1997, xii-xiii, 78, 197, 210).
    ${ }^{3}$ Métraux (1928a, 13) notes that the French chroniclers place the group they call cannibals in an area corresponding to that of the Potiguar.
    ${ }^{4}$ Edelweiss (1947, 39) notes that every time Anchieta mentions the Tupinakin, he places them in Porto

[^2]:    Seguro and nearby.
    ${ }^{5}$ For the names of tribes and their locations, see Cardim ([1881, 2009); Gândavo (1576); Sousa (185]); de Vasconcelos (1865).
    ${ }^{6}$ The meaning of the root toßajar 'opposite, opponent, oppose' is related to the meanings 'enemy' and 'brother-in-law' because it indicates 'those from the other side'.
    ${ }^{7}$ In one letter of 1584, Anchieta, who had been to Bahia, Espírito Santo, Rio de Janeiro and São Paulo, wrote: Desde o rio do Maranhão, que está além de Pernambuco para o Norte, até a terra dos Carijós, que se estende para o Sul desde a alagôa dos Patos até perto do rio que chamam de Martim Afonso, em que pode haver 800 léguas de costa, em todo o sertão dela que se estenderá com 200 ou 300 léguas, tirando o dos Carijós, que é muito maior e chega até ás serras do Peru, ha uma só lingua.(Anchieta 1933, 328) (From the Maranhão River, which is beyond Pernambuco to the North, to the land of Carijós, which extends to the South from the Patos floodplain to near the river they call Martim Afonso, where there may be 800 leagues of coastline, throughout the hinterland that will extend 200 or 300 leagues, except for Carijós, which is much larger and reaches the mountains of Peru, there is only one language.).
    ${ }^{8}$ Schmidt-Riese (1998) posits the hypothesis that the migration of Tupían groups towards the coast constitutes a suspension of the equilibrium, in the sense of Dixon et al. (I997), in which case the similarity of the variants along the coast would be a product of diversification and not of convergence.

[^3]:    ${ }^{9}$ The term means 'bad speech' in Tupinambá, but it is not known which language it refers to.
    ${ }^{10}$ Rodrigues (2010, 27-28) says that the Tupinambá used 'Tupinikin' to refer the Tupí of São Vicente as well as those groups' inhabitants of Espírito Santo and Southern Bahia.
    ${ }^{11}$ For the names of some local groups in Rio de Janeiro, see Fernandes (11970, 60-61).
    ${ }^{12}$ As Fernandes (1949, 22) observes, the fundamental principle of the Tupinambá economy was the produc-

[^4]:    tion of what was strictly necessary for immediate consumption. Accumulation of utilities for rationalizing was unknown to them.
    ${ }^{13}$ d'Abbeville ( 1614 ) writes that the chief of the Tupinambá 'has no authority other than giving advice, especially when they are in their assembly or carbet which they hold every evening in the open space where their houses are.' (apud MacCormack 1999, 120).
    ${ }^{14}$ See Sousa (1857, 222)
    ${ }^{15}$ Métraux (IY28a, 47-48) and Fernandes (I963, 70) estimated, based on textual data, the koti as being $4 \times$ 6.6 meters.
    ${ }^{16}$ The villages protected by fences can be seen, e.g., in the drawings by Staden (1557) and van Groesen and lise (2019).

[^5]:    ${ }^{17}$ As told by d'Abbeville (16/4) in a few passages, the dance had a special religious meaning for the Tupinambá, so that the Jesuits saw in it a sinful act (Anchieta 2006, 16, 32, 172, 193-194, 202, 204, 208). It had magic powers and was associated with the reincarnation of the shaman (paje) (d'Abbeville 1614, 209-209, 252-253).
    ${ }^{18}$ Po Pir actually means 'bead(s)' but also referred to necklaces and bracelets.

[^6]:    ${ }^{19}$ Also mentioned in Araújo (16/8b, 17, 179v). See Lima and Moreıra (200)).
    ${ }^{20}$ As Hemming (I978, 25) remarks, '[h]unting forced people to live in small groups, with enough men to hunt in packs, but never too many to exhaust an area's fish or game.'

[^7]:    ${ }^{21}$ From this word the name 'Guarani' is derived.
    ${ }^{22}$ In fact these wars had nothing to do with territorial disputes. Their purpose was to maintain an infinite revenge cycle related to the killing of group members by an enemy group.
    ${ }^{23}$ For the religion of the Tupinambá, see Métraux (1928b).
    ${ }^{24}$ This was the name given to the devil in the Jesuit texts.
    ${ }^{25}$ This was the name that Jesuits used to refer to the Christian God in Tupí.

[^8]:    ${ }^{26}$ In the original: 'Havia muitos destes índios pela Costa junto das capitanias, tudo enfim estava cheio deles quando começaram os portugueses a povoar a terra; mas porque os mesmos índios se alevantaram contra eles e faziam-lhes muitas traições, os governadores e capitães da terra destruíram-nos pouco a pouco e mataram muitos deles, outros fugiram para o sertão, e assim ficou a Costa despovoada de gentio ao longo das capitanias'.
    ${ }^{27}$ See https://terrasindigenas.org.br. Accessed on 01 September 2022.

[^9]:    ${ }^{28}$ It is worth mentioning that during the war between Paraguay and Brazil (1864-1870) speakers of Guaraní and Nheengatu could (still) understand each other (see Freire 201], 102). This could hardly be the case if the southern and the northern language of the coast were two different languages three hundred and fifty years earlier.

[^10]:    ${ }^{29}$ Lingua geral 'general/common language', as used by the Jesuits, first applied to languages that were spread through large communities in South America in the sixteenth century. This term must be distinct from 'Língua Geral' as the name of two language varieties that spread in the south (Língua Geral Paulista) and in the north of Brazil (Língua Geral Amazônica) as Tupinambá based creoles (Freire 2004, 93). For these varieties, see Rodrigues (1996b, 2010a), Schmidt-Riese (1998), and Muller et all (2019, 19-22, 72-79). The term 'Língua Geral' was most probably associated with a standardized form used by the church with the intention of unifying the language of the villages established by missionaries. The term is used in Mexico, Peru, and Brazil (Pottier) 1983, 21) with apparently the same meaning, that of lingua franca, i.e., the variety which had the highest degree of intelligibility, to refer to the coastal language in all its varieties (see Edelweiss 1947, 27-31). Nonetheless, in Brazil, the 'mestiçagem' gives the whole thing a completely different character than in Hispano-America, where the 'Lengua general' never became the mother tongue of a large population of settlers and native women.

[^11]:    ${ }^{30}$ Against such opinions, others maintain that descriptions like Anchieta's faithfully correspond to the language spoken as it was spoken by the natives Rodrigues et al. (1997).

[^12]:    ${ }^{31}$ The name Língua Brasilica appears in the titles of all works produced by the Jesuits up to the seventeenth century.
    ${ }^{32}$ The name Tupí is of obscure origin. According to de Vasconcelos (IX65), I, 109-110), it stems from a mythical character. This is a plausible etymology, since it appears to be related to the word for thunder in many Tupí-Guaraní languages (see the entry 'thunder' in Gerardı et al.), and it is associated with a divinity (Métraux 1928b).
    ${ }^{33}$ In Anchieta (L595, 1v) 'Tupi' only refers to those natives south of the Tamoyos, in Rio de Janeiro, who

[^13]:    called themselves Tupinambá. Hence the association of Tupí with the southern varieties and of Tupinambá with the northern varieties of speech (see Rodrigues [201()a).

[^14]:    ${ }^{34}$ Such a phenomenon was first described by Adam (1879). Cardim (2009) was the first to write that the language spoken on the coast had words only used by men and words only used by women.
    ${ }^{35}$ The survey in Rose (2015a) found forty-one South-American languages belonging to thirteen stocks.
    ${ }^{36}$ Rose (2015b) notes that the fuzzy boundary between discourse markers and other categories pose a problem for categorizing elements such as the particles/interjections presented in this section for Tupinambá.

[^15]:    ${ }^{37}$ Based on the definition proposed by Dingemanse (202I) I opt not to consider the elements in question as interjections. The items in question seem not to agree with one of the formal characteristics proposed, namely that they may function as stand-alone utterances.

[^16]:    ${ }^{38}$ For an English translation of Staden's book, see Staden (2008). For an overview of Staden's account and drawings, see Duffy and Metcalf (2012).

[^17]:    ${ }^{39}$ While some authors have taken the various accounts of aspects of Tupinambá culture by the first sixteenth century authors as factual, due to their similarity, such as Métraux (1928a, 11948, 1979); Fernandes (1949, 1970 ), others have questioned this similarity, in particular the description of the anthropophagic ritual (see Ziebell-Wendt 1991).
    ${ }^{40}$ musu-rana 'rope-false'. See Métraux (1928a, 80-83) and Métraux (1979, 123-125).
    ${ }^{41}$ i $\beta$ ira-pema 'wood-angle'. Staden provides a drawing of this club.

[^18]:    ${ }^{42}$ The dialogue, and perhaps other parts of the Histoire may not have been composed by Léry (see, e.g., Gaffarel 1877; Cesar 2016).

[^19]:    ${ }^{43}$ The same belief is found among the Tembé, Guarayo, and Apapocuva (see Métraux $19 / 9,35,51,54-55$, 112). This Brazilian edition of Métraux's essay is cited when notes accompanying the text are referred to.
    ${ }^{44}$ In its original title: Catecismo na Lingoa Brasilica, no qual se contem a svmma da doctrina christã. Com tudo o que pertence aos Mysterios de nossa sancta Fé \& Bõs custumes. Composto a modo de Dialogos por Padres Doctos, \& bons lingoas da Companhia de IESV. Agora nouamente concertado, ordenado, \& acrescentado pello Padre Antonio d'Araújo Theologo, \& lingoa da mesma Companhia. The imprimatur of the cathecism mentions that the text had been in use in the missions for about forty years
    ${ }^{45}$ Barros (2004) sees the standardization of Tupí in its religious context as a particular case of diglossia, where linguistic varieties acquire different uses, functions, and social values within a community, i.e., a linguistic variety becomes standard use in specific contexts.

[^20]:    ${ }^{46}$ For this manuscript, see de Paula Martins (1945a, 1949).

[^21]:    ${ }^{1}$ In this regard, Rodrigues writes: Na exposição dos fenômenos fonéticos, detém-se Anchieta em quinze páginas, registrando, com meticulosidade rara mesmo em trabalhos modernos, mudanças e equivalências fonéticas, variantes individuais e diversidades dialetais. (In the exposition of phonetic phenomena, Anchieta uses fifteen pages, recording, with rare precision, even in modern works, phonetic changes and equivalences, individual variants, and dialectal diversities.) (Rodrigues 1951b)

[^22]:    ${ }^{2}$ Minimal pairs with the glottal stop are not found abundantly (see [27), and are restricted to initial and medial position, since there is no evidence for the glottal stop in final position (see Iensen 1984, 53).
    ${ }^{3} / \mathrm{p}^{\mathrm{j}} /$ is not abundantly attested. In word-initial position I have not found more than 10 items , including some compounds.
    $4 / p^{w} /$ is not abundantly attested.

[^23]:    ${ }^{5}$ The primary sources do not graph or mention the glottal stop. Perhaps an indication of it can be found in Araújo (see Araújo 1618 b , 3), who inconsistently marks the second vowel of a sequence with two dots, indicating that they do not form a diphthong, e.g. mbaeü, which could represent [ ${ }^{\mathrm{m}}$ ba, $\mathrm{e} \mathrm{e}^{\prime} \mathrm{Pu}$ ] (see Araújo 1618 b , $17 \mathrm{v})$.

[^24]:    ${ }^{6}$ Manõ 'die', like many other words, never appears with a nasalized [ã] in the sources. If the [a] is not nasalized one would expect [ ${ }^{\mathrm{m}} \mathrm{b}$ ], which never occurs.

[^25]:    ${ }^{7}$ Rodrigues (1958b, 80) mentions that the realization of $/ \mathrm{g} /$ as $\left[{ }^{\mathrm{y}} \mathrm{g}\right]$ could also occur, but he acknowledges the impossibility of determining such realizations from the extant texts. See also Rodrigues ([1974, 18-19).

[^26]:    ${ }^{8}$ See Section 2.1.2.11.
    ${ }^{9}$ The phonological rule in (49) only applies to morpheme boundaries. However, it is not unreasonable to suppose that it might have occurred in syllable boundaries as well, as in /kurumí/ $\rightarrow$ [kũ.nũ.'mí] 'boy'. The reason for this seems to be the fact that sonorants in TUP were affected by regressive nasality. The word kunumí, for example, is never attested with the flap. Its first attestation with the flap comes from 1739 (see Edelweiss 1969, 134-137).

[^27]:    ${ }^{1}$ Haspelmath (2008) criticizes RRG on the basis the same argument used by RRG to criticize the Chomskyan framework, saying that Lakhotacentric or Tagalocentric frameworks are in no way better than Anglocentric frameworks. However, as ackendott ( 2002,75 ) writes, RRG has developed a syntactic machinery more explicitly designed to speak to the varieties of syntactic phenomena in the languages of the world.
    ${ }^{2}$ The main descriptions of the theory are found in Foley and Van Valin Jr (1984); Van Valin Jr (I99), 1993); Van Valin Ir and LaPolla (1997); Van Valin In (2001b, 2005, 2008a, 2022)

[^28]:    3"Languages are systems and not random collections of grammatical constructions. When explored from the perspective of how they achieve a certain communicative end, we see their systematic nature most clearly" (Foley and Van Valin Jr 1984, 374).
    ${ }^{4}$ For a description of Structuralism and its background, see Goldsmith and Laks (2019).
    ${ }^{5}$ SFG takes a radical discourse-pragmatic view, starting with discourse and working 'down' to lower levels of grammatical structure.
    ${ }^{6}$ Langacker recognizes only the semantic, phonological and symbolic aspects of linguistic structure, and rejects the distinction between semantics and pragmatics, which he considers to be artificial and arbitrary (see Langacker 1990).

[^29]:    ${ }^{7}$ This is one important characteristic of RRG that is shared with Constructional Grammar (see e.g. Goldberg 2003, 219).
    ${ }^{8}$ The modeling of the communicative process, what the hearer and the speaker do, makes RRG suitable for computational implementation (see Kallmeyer et al. 2013 and Nolan 20(04) and also applicable in psychoand neurolinguistic studies (see Van Valin In 2006a) and cognitive science (see Van Valin Jr and LaPolla 1997, 640-649).

[^30]:    ${ }^{9}$ The glossing of this example will become clear in the next chapters. For now, it suffices to say that ' 3 ' refers to the subject, and ' $\mathrm{R}_{2}$ ' refers to the object.
    ${ }^{10}$ The explanation of the linking algorithm provided here is a superficial one. For more details see: Van Valin Ir and LaPollal (1997, chap.7),Van Valin Jr (2005, chap. 5), Van Valin .Jr (2006b), and Osswald and Kallmeyer (2018).
    ${ }^{11}$ See Van Valin Jr and Usón (2014, footnote 2).
    ${ }^{12}$ These were called constructional templates in Van Valin Ir and LaPolla (1997).

[^31]:    ${ }^{13}$ For some examples of constructional schemas, see: Van Valin Ir and LaPolla (IV997, 433-436), Van Valin ITI (2005, 132-134), Jiménez-Briones and Luzondo-Oyón (2013), González Vergara (2006), Nolan (2013), Diedrichsen (2070).

[^32]:    ${ }^{14}$ The typological adequacy to which RRG subscribes was laid out in Dik (1991). See Van Valin Ir and LaPolla (I997, 14-15).

[^33]:    ${ }^{15}$ The term 'head-marking' has a slightly different meaning in RRG than originally proposed in Nichols (I986), according to whom any head-dependent relation can be morphologically encoded on the dependent, the head, both, or neither. This definition requires one to consider, e.g., subject-verb agreement in English as headmarked. In RRG, the term implies, as in Bloomfield (1935), a head to which one or more bound morphemes are attached, filling the head's semantic argument positions.

[^34]:    ${ }^{16}$ These distinctions were proposed in Vendler (1967), formalized in Dowty (I979), and extended by RRG (see Van Valin Ir and LaPolla 1997, 82-128, Van Valin Ir 2022)

[^35]:    ${ }^{17}$ See Section 5. 2.2 .
    ${ }^{18}$ The difference between activities and active accomplishments is the telic use of activity verbs. This general pattern relates activity verbs of motion (e.g., run), consumption (e.g., eat), and creation (e.g., paint) to the corresponding active accomplishment verbs, (e.g., run to the park, eat the cake, and paint the picture), respectively.

[^36]:    ${ }^{19}$ Regarding the use of states with progressive forms, there are marked interpretations, such as Henry is loving the game.

[^37]:    ${ }^{20}$ Thematic relations do not play a role in the theory; they are mere mnemonics for the LS argument positions, e.g., 'perceiver' is the mnemonic for the first position ( x ) in a two-place perception LS like hear' ( $\mathrm{x}, \mathrm{y}$ ).
    ${ }^{21}$ It is not a contradiction that the thematic relations of experiencer and recipient may be either actor or undergoer.

[^38]:    ${ }^{22}$ See also Pustejovsky and Jezek (2016).

[^39]:    ${ }^{23}$ Van Valın.In (2006b, 78-81) presents convincing evidence for positing only two macroroles. See also Van Valin .Jr (1999a).
    ${ }^{24}$ They correspond to the pre-theoretical notions of 'logical subject' and 'logical object' or, alternatively, to the general notions of 'agent' and 'patient' (Van Valin .Tr 2022, 88). RRG does not use these labels because they are normally used to refer to syntactic rather than semantic relations ( $\operatorname{Van}$ Valin In [20)5, 60).

[^40]:    ${ }^{25}$ For the principles determining the m-transitivity of verbs, see Van Valin Ir (2005, 63-66). M-transitivity and S -transitivity may coincide, but this is not always the case.

[^41]:    ${ }^{1}$ For the disambiguation of terms such as parts of speech, lexical categories, syntactic categories, and word classes, see Rauh (2010).
    ${ }^{2} \mathrm{Croft}(2022 \mathrm{~h})$ prefers to avoid the term 'comparative concept'.

[^42]:    ${ }^{3}$ Following best practice in typology, for language-specific (descriptive) categories I capitalize the initial letters of the name of the category, while comparative concepts are not written with the first letter capitalized. So, for example "Adjective" refers to the language-specific lexical category manifesting a modifying function in the language under discussion, while "adjective" refers to the comparative concept as found in different languages.

[^43]:    ${ }^{4}$ The topic has been discussed since the beginning of last century, regarding different language families: Boas (1911b); Swadesh (I938); Frachtenberg (1922); Davis and Saunders (1997); Hébert (I983). See also Mithun (200), 56-67), Dixon (2010a, 37-61), Davis and Matthewson (2009), Lazard (1999); Broschart (1997); Evans and Osada (2005); Peterson (2007).

[^44]:    ${ }^{5}$ Markedness, as explained in Beck (20)(2), 21-24), should not be understood exclusively in terms of additional markedness (more marked). There are instances in languages of less marked where the less marked form, e.g., one that has undergone the loss of a morpheme (decategorization), suggests markedness.
    ${ }^{6}$ This terminology is taken from Haspelmath (2022).
    ${ }^{7}$ The allomorph - $a$ is used after consonants, while $\varnothing$ is used after vowels (see Table 4.5).

[^45]:    ${ }^{8}$ Omnipredicative languages in his terms roughly correspond to the nonconfigurational type defined by (Hale 1983; [elinek I984; Baken 200I).
    ${ }^{9}$ Other languages that have been said to be of the omnipredicative type are: Salish (Kinkade 1983), some Philippine languages (Lemaréchal 1989, [1991; Himmelmann 2008), Yucatec Maya (Vapnarsky 2013), Khoekhoe (Hahn 2014), Sikuani (Queixalós 200).

[^46]:    ${ }^{10}$ The definition of clitics and affixes is here taken to be a straightforward one: affixes are class-selective, while clitics are indiscriminate, combining with any word-class (see Haspelmath 2021b).
    ${ }^{11}$ The term 'argument index' is taken from Haspelmath (2013).

[^47]:    ${ }^{12}$ For an overview regarding portmanteau indexes in TG languages, see Rose (2009, 2015b). For a discussion of the possible origin of these morphemes, see Cabral (2001a).

[^48]:    ${ }^{13}$ The edition consulted for the text of Araújo has pytub (pitu $\beta$ ) instead of pisi $\beta$. Whether this a is dialectal variation or a printing error is not known.

[^49]:    ${ }^{14}$ If one considers their original status as root-initial segmental alternation, then it would be a feature of six branches (see Drude and Meira 2019).

[^50]:    ${ }^{15}$ See Salanova (2009) for an alternative view.
    ${ }^{16}$ See Iensen (1998a) for a reconstruction of noun classes in PTG. See also Meira and Drude (2013).
    ${ }^{17}$ The abbreviation with the numbers $\left(\mathrm{R}_{1}, \mathrm{R}_{2}\right.$, etc.) follows Rodrigues (1996a); Cabral (2000).
    ${ }^{18}$ For the problem of the origins of the relational morphemes and their development see Iensen (I998a);

[^51]:    ${ }^{19}$ The examples below, involving a possessive construction with a non-contiguous relational and first or second person, are rarely attested. I suppose this construction was avoided due to its complexity, which explains its mention in Anchieta's grammar but its scarcity in the texts.

[^52]:    a. Korite?ĩ Pedro [feru $\beta$ mongetaw]
    korite? $\tilde{i}$ Pedro $\int \mathrm{e}=\mathrm{r}-\mathrm{u} \beta-\mathrm{a} \quad \varnothing$-mongeta-w
    now Pedro $1 \mathrm{SG}=\mathrm{R}_{1}$-father-REF $\mathbf{R}_{1}$-talk-NFOC
    'It was now, that Pedro spoke to my father.' (FA, 96)
    b. $\int \operatorname{eru} \beta \mathrm{a}$ korite $\tilde{i}$ ĩ Pedro [imongetaw]
    $\int e=r-u \beta-a \quad k o r i t e ? \tilde{i}$ Pedro i-mongeta-w
    $1 \mathrm{SG}=\mathrm{R}_{1}$-father-REF now Pedro $\mathbf{R}_{\mathbf{2}}$-talk-NFOC
    'Pedro has now spoken to my father.' (FA, 96)

[^53]:    ${ }^{20}$ Regarding the lack of third person in languages, see Benveniste (1971); Bhat (2005); Siewierska (2005), (20)(9).

[^54]:    ${ }^{21}$ For arguments against the presence of relationals in the Jê family, see Salanova (2004, (2009).
    ${ }^{22}$ Gomes (2006, 39-40) also defends the relational hypothesis for Mundurukú, asserting that its relational morphemes have a complex allomorphy and are capable of explaining syntactic phenomena which would be impossible to explain if they were analyzed as third-person prefixes. One such explanation is given in Meira and Drude ( 2013,19 ), where it is shown show that -iát, but not-at, may nominalize a clause.

[^55]:    ${ }^{23}$ This seems to be connected with the tendency to minimize dependency length (see Liu 2008 and Futrell et al, (2015).

[^56]:    ${ }^{1}$ The order of noun-postposition and genitive-noun is typologically consistent with OV order, while the order of noun-adjective is only slightly inconsistent with the other parameters (see Dryer 1997 ).
    ${ }^{2}$ Some languages have atransitive predicates, i.e., predicates with a semantic and syntactic value of 0 (zero) (see Van Valin In 2005, 64).

[^57]:    ${ }^{3}$ For a similar pattern in other language families and discussion of the phenomenon, see Bresnan et al. (2001); Aissen (1999); Ielinek and Demers (1994, 1983).

[^58]:    ${ }^{4}$ See the 3.18 in Section 3.3.2.

[^59]:    ${ }^{5}$ There seems to be an intransitive bias in OV languages, i.e., languages in which the object precedes the verb (see Hawkins 2014, 158, 180), Nichols et al] 2004. See also (Progovac 2015; Queixalós 2010). Although the topic is not discussed in this work, it could be related, diachronically, to the intransitive bias found in TUP, and somehow related to relational morphemes. This is something scholars of Tupí-Guaraní should consider as a research topic.

[^60]:    ${ }^{6}$ Operators not included.
    ${ }^{7}$ The source does not specify a recipient, using an abbreviation instead.

[^61]:    ${ }^{8}$ The same has been observed in Oneida, an Iroquian language (see Michelson 1991).

[^62]:    ${ }^{9}$ This type of possessor-stranding (Baken 1988, 96-105) seems to be found in other TG languages such as Araweté (Solano 2010, 330), where it is similar to the TUP construction, and in Tenetehara, with a somewhat different construction (see Castro and Camargos 2021). In other languages, e.g., Kamajura (Seki 1990, 143144), Guajá (Magalhães 20]0, 198), Tekó (Rose 20]1, 266-269), and Wayampi (Copin 2012, 343-344), it is less clear if there is possessor-stranding, because the possessed element is not marked by a non-contiguity marker, as in TUP.

[^63]:    ${ }^{10}$ Formed by the root iko 'be' + the adverbial particle $\beta e$ 'still, also'.
    ${ }^{11}$ Araújo (1618b, 44v,46,50v), Anchieta (2006, 10,42,62,92,138,156). An exception is found in Anchieta (1997, 148).

[^64]:    ${ }^{12}$ The case of TUP could be due to the fact that the authors of the texts were speakers of Portuguese, to whom the lack of a copula was perceived as something odd.

[^65]:    ${ }^{13} M a P e$ 'thing' is attested with the relational of non-contiguity and with the relational of coreference, as well as with possessor indexes.

[^66]:    ${ }^{14}$ The same problem was noted by Montoya (I1876, 35) for Old Guaraní.

[^67]:    ${ }^{15}$ These two types of causatives could be expressions of two different levels of lexical complexity, as suggested by Nichols et al. (2006); Nichols (2009).
    ${ }^{16}$ These verbs are found in Old Guaraní Montoya (I876, 199-199v).

[^68]:    ${ }^{17}$ The absence of an indexed undergoer in the cores of a predicate causativized by mo- is the most common situation in all TG languages, except the northern variety of TG. It seems more reasonable to assume the loss of $\mathrm{R}_{2}$ before mo- in the TG languages, including the southern variety of TUP, than an innovation of the northern variety. The evidence suggesting the retention of $R_{2}$ is the fact that Mundurukú (Crofts [20)4; Gomes[2006) and Mawé (Silva et al. 2010), two branches that split before TG (see Galucio et al. 2015; Rodrigues and Dietrich 1997), have the relational obligatorily followed by the causative morpheme in a causative construction. Awetí, the last Tupían split before TG, does not show it because only vestiges of relationals are found in this language (see Rodrigues and Cabral 2012, 514-515).

[^69]:    ${ }^{18}$ The transitive verb itarõ 'satiate' is indeed attested with -mo, but without a change in meaning.

[^70]:    ${ }^{19}$ The $t$ - is the $\mathrm{R}_{4}$, which indicates a non-specific possessor.
    ${ }^{20}$ In order to differentiate the causatives of intransitive from causatives of transitive, the latter are glossed as FAC 'factive'.

[^71]:    ${ }^{21}$ Out of fifteen TG languages, including Old Guaraní, where ukar is also used as a causative with transitive verbs, none has it as a lexical root: Apiaká (Sousa [2017), Asuriní Xingu (Pereira 2009), Asuriní Tocantins (Cabral et al. 2011), Chiriguano (Dietrich I986), Tekó (Rose 2000), Guajá (Silva Magalhães 2002), Guajajara (Harrison and Harrison 2013), Guaraní (Estigarribia 2020), Guarayo (Höllen 1932), Kamajurá (Seki 2000), Mbyá (Dooley 1998), Old Guaraní (Montoya [876), Parakanã (Ferreira da Silva 2003), Tapirapé (Praça 2007). The only language where a cognate of ukar has a function other than a causative is Zo'e, where it appears to have a modal meaning (de Castro et al, (2020).

[^72]:    ${ }^{22}$ In the vast majority of TG literature, this has been referred to as causative-comitative voice (Rodrigues 2010b; Rose 201]; Sek1 2000; Magahäes 2010).
    ${ }^{23}$ Note that 'an asymmetry in degree of control between causer and causee is necessary for causation to eventuate, an active causee is normally seen as a cooperating participant, albeit not always willing' (VelázquezCastillo 2002, 521). In this sense, there is no distinction regarding the volition of the causee expressed by the morpheme ero-.

[^73]:    ${ }^{24}$ The root ur 'come' with the sociative comitative prefix ero- forms the verb erur 'bring', e.g., I go and cause $X$ to go with me.
    ${ }^{25}$ This statement applies to word-class theories, e.g., as in Givón (200I), but following Velázquez-Castillo (I995, 677) this is taken to mean that incorporated nouns 'lack many or all of the morphological trappings characteristic of nouns, such as gender, number, or definiteness marking.' TUP does allow an incorporated noun to be modified by a possessor, providing an exception to a characteristic intrinsically related to transitivity, according to Hopper and Thompson (1984).
    ${ }^{26}$ In this regard, Mithun observes that structures with noun incorporation 'tend to be used in contexts without specific, individuated patients. They may be generic statements; or descriptions of on-going activities, in which a patient has been incompletely affected; or habitual activities, in which the specific patient may change; or projected activities, in which the specific patient is not yet identifiable; or joint activities, where an individual agent incompletely affects a particular patient; or activities directed at an unspecified portion of a mass.

[^74]:    ${ }^{27}$ Van Valin Ir (2013) is motivated by the status of the independent RPs in head-marking languages (see Section 6.3), and by the targeting of elements inside the word by syntax.

[^75]:    ${ }^{28}$ Due to the nature and function of the relational morpheme in Tupinambá, the analysis proposed here must be different from the analysis of the same phenomenon in Guaraní proposed by Velázquez-Castillo (1995), 682$685,695)$. The main reason for this is the fact that the TUP relational of non-contiguity $\left(\mathrm{R}_{2}\right)$ is not viewed as such in Modern Guaraní, as the glossing of Examples (38) in Velázquez-Castillo (1995, 695) indicates. See also Estigarribia (2020, 133-135) and Rose (2011, 382-384).

[^76]:    ${ }^{29}$ The verb ruy 'put, establish, arrange', not frequently attested, is only attested with incorporated nouns, except for its nominal forms.

[^77]:    a. Aikoruy $\int \operatorname{eru} \beta a$
    a-i-ko-ruy
    fe=r-u $\beta-a$
    $1 \mathrm{SG}-\mathrm{R}_{2}$-slash-prepare $1 \mathrm{SG}=\mathrm{R}_{1}$-father-REF
    'I prepare my father's slash.' (FA, 145)
    b. As? ĩjok
    a-s-i $\mathfrak{i j}$ j-ok
    1SG-R2-seed-RIP.OUT
    'I ripped out his seeds.' (VLB, I, 123)
    c. Eresausupotaretépe Tupã?
    ere-s-awsu $\beta$-potar-ete=pe Tupã
    2SG-R2-love-want-truth=Q God
    ‘Do you really want to love God?' (Bettendorff, 125)
    d. Atußajuka Francisco
    a-t-u $\beta$-a-juka Francisco
    1SG-R 2 -father-REF-kill Francisco
    'I killed Francisco's father.' (FA, 88)

[^78]:    ${ }^{30}$ The case of maPe 'thing' is a clear case of grammaticalization of a nominal stem. The etymology of poro is not known, so it is not possible to establish its path of grammaticalization or even assert that it is a case of it. These lexemes have often been treated as cases of incorporation in descriptions of TG languages (Dietrich 1994). While poro is a case of a dedicated antipassive marker, as it has no other function, mape is a case of a syncretic antipassive, because this marker does have another function. Both types belong to a well-known cross-linguistic distinction (see Janic and Witzlack-Makarevich 2021, 11-14).

[^79]:    ${ }^{31}$ This section will not treat coreference within the clause that can be expressed in other ways than with a reflexive marker (see Haspelmath 202la).

[^80]:    ${ }^{32}$ That the relationship between the antecedent and the reflexive is semantically motivated seems to be corroborated by the fact that there are no cases of objects binding subjects or patients binding agents. According to RRG, the more semantically motivated a feature, the less cross-linguistic variation it will show. Regarding how far away the reflexive can be from the antecedent, this is a syntactically motivated issue, and therefore more cross-linguistic variation is not only expected but is indeed what one observes (see Van Valin Ir and LaPolla 1997, 389-418, 604-615).

[^81]:    ${ }^{33}$ 'The fact that these situation types recurrently cluster together in the languages of the world, i.e., are expressed by the same marker in a given language across many languages, suggests that the middle is a linguistic category with the potential for grammatical instantiation.' (Kemmer 1994, 183).
    ${ }^{34}$ The middle-reflexive opposition here is similar to the opposition of reflexives and false reflexives in Dixon (IIT12, 89-94).
    ${ }^{35}$ For the relationship between middle and reflexive markers, see Inglese (2022). One interesting finding of Inglese (2021) is that middle markers 'are most conspicuously associated with anticausative/spontaneous events and with verbs of translational motion, and less so with grooming and non-translational motion situations, which in Kemmers (1993) view represent the semantic middle prototype'.

[^82]:    ${ }^{36}$ 'To give quarters/barrack' was synonym to 'spare one's life'.

[^83]:    ${ }^{1}$ One could argue that all the pre-core elements in this example are in the ECS, but since both editions of the Teatro have a dash instead of a comma, I take this to be a sign of a longer pause, and thus the PrDP is an interpretation that better fits the pragmatics of the sentence. Moreover, the ECS does not host multiple elements (phrases), whereas the PrDP does.

[^84]:    ${ }^{2}$ It is worth mentioning, as observed by Bohnemeyer et al. (2016, 182), that head-marking has a more restricted meaning in RRG than it originally had in Nichols (1986).

[^85]:    ${ }^{3} \mathrm{~Pa} \beta$ is a lexical root meaning 'terminate, all, finish'. One could well argue that it has grammaticalized as a completive aspectual marker, but since it continues to be used as a lexical root, I prefer to view this as a lexical root which, like others, can be used as a modifier.

[^86]:    ${ }^{4}$ Van Valin Jr and LaPolla (1997, 41) state that 'modality, status, and illocutionary force are all conflated in traditional grammar under the term "mood". Following this approach, the term 'mood' is not used in this work.'

[^87]:    ${ }^{5}$ Bickel and Nichols (20)(5) distinguish two kinds of clitics: phonologically bound words, and those that do not select the category of the host they attach to, i.e., clitics that may attach to any type of word, or even affixed to constituents or clauses. The interrogative $=p e$ and the future marker $=n e$ are of the second type.

[^88]:    ${ }^{6}$ See section (I.Z).
    ${ }^{7}$ For example: Dietrich (I986, 110-111), Rose (2011, 275-276), Sekı (I990, 129-130), Villatañe ([2004), 210), Pease (2007, 53-57).
    ${ }^{8}$ The use of the term hortative seems more appropriate, as the term "permissive", frequent in descriptions of Tupí-Guaraní languages. According to the examples found in the TUP corpus, its most frequent usage is in blessings and curses (as optative), although it is also used as non-second person commands (jussive and

[^89]:    ${ }^{9}$ A similar example, with the same evidentials in (273D) is found in Guarayo (my gloss and translation; the original orthography is maintained).

[^90]:    ${ }^{10}$ The term 'realis' is controversial in linguistics (see von Prince et al. (2022)). I follow Haspelmath (2010), according to whom comparative concepts cannot be right or wrong, but more or less productive. In this sense, it is not controversial that what $I$ here consider to be a marker of irrealis status is elsewhere considered a marker of subjunctive mood (e.g. Sekil 2000, 130) or another grammatical category.
    ${ }^{11}$ For the structure of clauses with reme, see Section [0.2.2.

[^91]:    ${ }^{12}$ For some cognates of TUP $\beta i a \tilde{a}$ in other TG languages and their meaning, see Iensen (I998a, 538-539).
    ${ }^{13}$ The lusive marker jõte probably should be analyzed as the combination of the particle/adverb jõ 'only,just' and the focal particle $t e$.

[^92]:    ${ }^{14}$ Most probably, swe and swe / so are the result of a palatalization due to a preceding $i$ - (see example B0l).

[^93]:    ${ }^{15}$ These examples are translated in the original sources as 'not refrain from (doing) X '. This nuance is still seen in double negation construction in Mbyá Guaraní (Dooley 2015, 88), where the construction translates to 'not refrain from doing X/not refuse (to do) X.'

[^94]:    ${ }^{16}$ For a similar analysis using three parameters but somewhat different terminology, see: Givón 200); Bhat 1999.
    ${ }^{17}$ Anchieta 1595, 21v says that $a$, nja, and iko have the same meaning as $j \tilde{a}$. He provides examples like (286) with all these forms.

[^95]:    ${ }^{18}$ I do not agree with the terminology in Rodrigues (1953, 129), which refers to the clitic =ne as intentional, because many occurrences of it exclude an intentional reading. Additionally, since intention relates to a participant, it would be a core and not a clausal operator.
    ${ }^{19}$ See note 5 .

[^96]:    ${ }^{20}$ Bybee et al. (I994, 181) notes that this type of modality is rarely expressed by inflectional affixes.

[^97]:    ${ }^{21}$ This particle is poorly attested. It is often associated with the irrealis marker mo. Mone is attested in the following sources: Araújo ( $1618 \mathrm{bb}, 156 \mathrm{v}, 165 \mathrm{v}$ ), Anchieta ( 1595,25 ), Anonymous ( $1952 \mathrm{~L}, 53,59,64$ ).

[^98]:    ${ }^{22}$ These verbs seem to be onomatopoetic, imitating, for example, the noise of boiling water or the flapping of wings.

[^99]:    ${ }^{23}$ For the cognates of the privative -e?im in other Tupí-Guaraní languages and their use, see Dietrich (2017b).

[^100]:    ${ }^{1}$ Other types of states are discussed in Vendler (11967) which are not relevant to the morphosyntax of TUP (see Crott 2012, 77-83).

[^101]:    a. Oßok neji?ã
    o-ßok ne= $\varnothing$-jiPã-REF
    3-blast.off $2 \mathrm{SG}=\mathrm{R}_{1}$-heart-REF

[^102]:    ${ }^{2}$ Although this idea is not developed here, I do consider the possibility of these markers being modifiers of the qualia (see Section [3.3.1) In this case, the past form of a house would indicate that one or more qualia has/have been modified, constitutive role, formal role, telic role, or agentive role. A house without a roof for example, would have its formal role altered, because a part of it is missing as well as its telic role, since it could not fulfill its goal of sheltering people. A house in construction, for example, would have some of its qualia different from a finished house, in the sense that its parts would not be the same, the same for its telic role, since people could not live inside it yet. these are basic examples, but it seems reasonable, I think, to pursue this possibility further.

[^103]:    ${ }^{3}$ The combination of $p^{w}$ er with ram, $p^{w}$ eram lexicalizes with the meaning 'frustration, to frustrate oneself' (see Example (331)): see Araújo (1618b, 53,84,161) and Anchieta (1595, 34). It is not attested in Old Guaraní (see Montoya 1876, 29 and Restivo 1724, 51(43)), while ramp ${ }^{w}$ er is more frequently attested.

[^104]:    ${ }^{4}$ Anonymous (1952a, II, 10) translates: 'to have yeast' $\int e=\varnothing$-ti-tina and if there are many syllables, then the last one is repeated, as in $\int e=\varnothing$ - $t i-t i(\eta)-t i \eta-a$. The formation is also seen in the names of some white-spotted animals: pikitia = piktitiga (Marcgrave and Piso 1648, 159), jabutitiga (Marcgrave and Piso 1648, 241) and Anonymous (I952a, I, 62). In these examples, it is not the modifying element that is pluralized. The head noun and its modifier become one word, and reduplication affects the last syllable, so that it is natural that only the modifying element is reduplicated. A similar phenomenon is seen in verbal reduplication, which sometimes reduplicates not only the verbal root but also the bound index, because some roots are monosyllabic, as in eresiresik 'you frequently arrive' (ere- + sik). Further examples are: i $\beta \dot{i} t i \beta i t i r a$ 'mountain range' Anonymous (I952a, II, 60), mitamita Anonymous (I952a, II, 132). See also (413).

[^105]:    ${ }^{5}$ The postposition ese requires a plural subject index with some verbs (Anchieta [1595, 44v).
    ${ }^{6}$ While supe can follow an free pronoun, it cannot attach to a bound index.

[^106]:    ${ }^{7}$ In Navarro (2013), the form $r i$ is given.

[^107]:    ${ }^{8}$ This is not the case when the morpheme - $\beta o$ has the meaning of 'according to'.

[^108]:    ${ }^{1}$ This is conjecture based on a comparison with numerals in other Tupían languages.

[^109]:    ${ }^{2}$ Also spelled ojeirundik.
    ${ }^{3}$ Ojoirũ means 'companions of each-other'.
    ${ }^{4}$ Also spelled mojerundik.

[^110]:    ${ }^{5}$ All these hands and three toes $=10+3$.
    ${ }^{6} \mathrm{My}$ hands, my feet, someone's hands, his feet $=10+10+10+10$.

[^111]:    ${ }^{7}$ The lexical root $e k a t e$ ?im is possibly a compound of $e k a r$ 'seek' $+e$ ?im 'privative'. Even if the etymology of the first element of the compound is uncertain, there is no question regarding the presence of the privative morpheme.

[^112]:    ${ }^{8}$ The nominalizing suffix - $\beta a$ ?e also combines with deictics (see Section 区. .ل1) and lexical roots of different semantic categories, such as 'one' in o-jepe- $\beta a$ Pe 3 -one-NMLZ ${ }_{\text {REL }}$ 'the one who is unique' (DC, I, 141).

[^113]:    ${ }^{9}$ 'Yellow parrot' was the expression used to refer to the French (see VLB, I, 143) or other people of European descent (see also Marcgrave and Piso 1648, 268).
    ${ }^{10}$ This example may be compared with the following example:
    (1) Mena si Men-a $\quad \varnothing$-si- $\varnothing$ husband-REF R-mother-REF
    'Mother of the husband.'

[^114]:    which is not a compound, because there is a syntactic relation.

[^115]:    ${ }^{11}$ For the relationship between grammar and culture, see Everett (2012).

[^116]:    ${ }^{12}$ Although this kind of apposition looks like modification by property, it is different from 'son of God', a possessive construction

[^117]:    ${ }^{1}$ The comparison of TUP with other TG languages could be helpful in perhaps recovering aspects of information structure in TUP. Nonetheless, as far as I am concerned, the gap in the treatment of information structure in TG languages in general or in specific languages urgently needs to be filled. Descriptions of TG languages in general do not devote space to this subject.
    ${ }^{2}$ This definition is from Lambrecht (2000, 616), except for PSA which is used in the place of 'subject'.

[^118]:    ${ }^{3}$ In the poems by Anchieta (Anchieta 1997), it is often the case that he moves constituents around, changing the order of the sentences in order to maintain a specific meter and to obtain the desired rhymes. These are probably cases of artificial constructions, since they are infrequent in the other texts - except for his theater plays (Anchieta 2006 ). The sentence in 454 is odd in that the PP ka?u rese 'in drunkenness' appears pre-core. The normal, expected order would have the PP post-core.

[^119]:    ${ }^{4}$ Due to its topical status, i.e., its association with a specific discourse function, the RP coindexed with the actor argument cannot be in the ECS.

[^120]:    ${ }^{5}$ The phenomenon is unevenly distributed among TG languages. In Guajá, Tapirapé, and Kamajurá the construction is only possible with third person, while in Parintintin, as in Tupinambá, only with first and third person. In Mbyá, the fronted adverbial is usually followed by a tense/aspect or modal particle (see Dooley 2015, 66). The construction has been lost in other languages, such as Tekó (Emérillon).
    ${ }^{6}$ The same interpretation of this construction, i.e., that the fronted adverbial expression as focal, can be found in Magalhães and Alves (2022).
    ${ }^{7}$ This type of contrastive focus expressed by fronted adverbials, adjuncts, or oblique arguments has been discussed in RRG terms for Tagalog in Latrouite and Van Valin .In (2021).

[^121]:    ${ }^{8}$ The authors neither write about the focal status of the fronted adverbials, nor about the non-focal status of the nominalized predicate.
    ${ }^{9}$ This construction exists, for example, in Guajá and Nheengatu (Praça et al. 2017), Kamajurá (Sek1 2000), Avá Canoeiro (Borges et al. 2006), Tekó (Rose 2003, 185-187), Anambé (Juliăo 2005, ex. 133), Warazu (Ramirez et al. 2017, 489)
    ${ }^{10}$ My glossing, original orthography maintained.

[^122]:    ${ }^{11}$ Mas tendo aduerbio，preposição，gerundio，supino，alguma oração antes，a que ha de responder outra Anchieta（I595，39v）．
    ${ }^{12}$［q］uando antes dellas fica algum advérbio，ou preposição，ou gerundio；ou se relatamos a cousa，de que já fallamos pertencendo ao tal verbo（Figueira 1687，93－94）

[^123]:    ${ }^{13}$ Amarraram suas mãos fortemente, fazendo-lhe mal. Derramando seu sangue, ficaram a açoitá-lo. (Poemas, 120)
    ${ }^{14}$ Anonymous (1952a, 108) says that the 'Tupinambá' (northern groups) thought that a jaguar ate the moon, but the 'Tupis' (southern groups) thought it was a snake. See d'Abbeville (1614, chap. 51).

[^124]:    ${ }^{15}$ For obviative and proximate, see Dryer (1992a), Aissen (1997), Oshima (2007), Martin (201]), Kiparsky (2015).

[^125]:    ${ }^{1}$ For the logical structure of 'verbs of saying', see Van Valin Ir and LaPolla (1997, 116-118).

[^126]:    ${ }^{2}$ See Van Valın Ir and LaPolla (IY97, 444-447) for restrictions and structural differences between English core and nuclear junctures.
    ${ }^{3}$ Independence, the ability to occur as an independent utterance, applies only to clausal junctures and therefore is not a general feature of nexus relations.

[^127]:    ${ }^{4}$ It has been suggested that the juxtaposition of clauses is a linking type with prosodic bases (see Jiménez 202II). While there is no operator sharing or dependence among juxtaposed clauses, it is true that juxtaposed clauses tend to have the same IF and tense.

[^128]:    ${ }^{5}$ In this sense, Navarro's interpretation of $a$ ?e as a conjunction Navarro (2013, 11) $\left.\left(a ? e^{3}\right)\right]$ seems to be a misinterpretation of structures such as (480).

[^129]:    ${ }^{6}$ The postposition porupi 'parallel to' is formed by po 'hand' and upi 'through, along, according to'. One may also regard it as an adverbial expression, as in i-po r-upi 'parallel to one's hand'. There is no way of knowing which is the correct analyses.

[^130]:    ${ }^{7}$ The same process is attested in Tekó (Rose 2011, 303-307,336-338).
    ${ }^{8}$ The subjunctive suffix -reme is sometimes glossed as CLM for a better grasping the structure of complex sentences, specially when the tree-like representation is given.

[^131]:    ${ }^{9}$ Some well-known examples after Chomsky (1965) are cases of the same sequence of words having different meanings. This is the Tupinambá equivalent of ambiguous English sentences, such as flying planes can be dangerous, visiting anthropologists can be dangerous, or I saw the man with the telescope. Obviously, they are ambiguous in a certain context, but they must have different structures which correspond to each possible interpretation.

[^132]:    ${ }^{10}$ The verb moneta 'speak' is transitive, i.e., the addressee is a direct undergoer core argument.

[^133]:    ${ }^{11}$ Rose (201], 425) says that this construction resembles switch-reference systems, but she was not categorical about it.
    ${ }^{12}$ According to Foley and Van Valin Jr (1984, 322-360) switch-reference is one of four types of morphosyntactic systems for signaling the reference relations of RP arguments in discourse, the others being switchfunction, gender system, and zero anaphora. For Comrie (I989), there are five different types of referencetracking system: gender/class indexing, reflexive pronouns, switch-function, switch-reference, and obviation.

[^134]:    ${ }^{13}$ In his study of complement clauses, Schmidtke-Bode (2015, 69) mentions that in Matsés, for example, 'apart from purpose, converbs may also be associated with other adverbial domains'. TUP is not alone in the Tupí-Guaraní family in its coding of purpose and simultaneity by the same converb construction. It is also the case in Old Guaraní (Montoya I876, 16), Restivo (I724, 76,82,84,101); Kamajura (Seki 2000, 195-201); and Teko (Rose 2011, 359).

[^135]:    ${ }^{14}$ These forms are cognates, in spite of the apparent difference, see Schleicher ( 1998 , 144), in line with a proposal in Haspelmath (1995, 17). See also Iensen (1998a, 529-530), and Cabral and Rodrigues (2005).

[^136]:    ${ }^{15}$ In the verses by Anchieta (Anchieta 1997, 2006), the non-finite core more often precedes the matrix clause than in all other texts due to the poetic character of these texts, e.g., the search for rhymes. Another issue is the use of commas, which seems to follow its use in Portuguese, blurring the structure of the texts.

[^137]:    ${ }^{16} \mathrm{Ku} \beta$ is only used with plural subjects.

[^138]:    ${ }^{17}$ Mithun (1988) suggests that additives are often grammaticalized to produce conjunction, claiming that conjunctions also frequently develop from an adverbial particle meaning 'also, too, as well'. Further evidence is provided by Haspelmath (2004), according to whom coordinators often have other meanings/functions besides the function of marking coordinating constructions.

[^139]:    ${ }^{18}$ The VLB (II, 60) also gives komonipo, which is not attested in any text.
    ${ }^{19}$ Nheengatu has substituted the TUP form(s) with $u$ 'or' (from Portuguese ou) (CruZ 2OII). konipo - like komonipo - occurs less frequently in the texts, perhaps because it is longer, with the exception of Anchieta (16189) (see Table [10.1). Língua Geral does not know konipo, which fell into disuse; it only attests kojpó (e.g. Muller et al. 2019, 27,211).

[^140]:    ${ }^{20}$ This section discusses only restrictive relative clauses, which is the more common type; the term 'relative clause' will be taken to mean 'restrictive relative clause' unless specified otherwise. Non-restrictive relative clauses give extra information that is not necessarily needed to identify the referent, and may follow a pause: e.g., my brother, who lives in Michigan, is older (I have only one brother). This contrasts with I texted my sister who lives in Canada. (I have other sister(s), but I am talking about the one who lives in Canada).

