

# The use of coreferential and reflexive markers in Tupí-Guaraní languages

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## 1. Introduction

Tupí-Guaraní is one of the major language families in lowland South America. This family is very diverse geographically, with members all across Brazil, and reaching into French Guiana on the north, Paraguay and Argentina on the south, and Bolivia on the west. The languages of this family have been tentatively divided by Rodrigues (1984/1985) into 8 subgroups, based systematically on their phonological history, but considering other factors as well, as in Table 1:

1 (Guaraní)	Argentina, Bolivia, Brazil, Paraguay	Chiriguano cluster (Ava, Izoceño). Guayaki (Aché). Kaiwá. Mbyá. Nhandéva.
2	Bolivia	Guarayu. Sirionó.
3	Brazil (coastal)	Tupí (extinct). Tupinambá (extinct). Nheengatú. Kokáma.
4	Brazil (GO, MA, MT, - PA)	Avá. Akwawa cluster (Tocantins Asurini, Suruí of Tocantins, Parakaná). Tapirapé. Tenetehára cluster (Guajajára, Tembé).
5	Brazil (MT, PA)	Xingu Asurini. Kayabí. Araweté??
6	Brazil (AC, AM, MT, RO)	Apiaká. Kawahib cluster (Parintintín, Tenharim, and others)
7	Brazil (MT)	Kamaiurá
8	Brazil (AP, MA, PA), French Guiana	South of Amazon: Anambé. Guajá. Urubu-Kapor. North of Amazon: Emerillon, Wayampi, Zo'é
Abbreviations of Brazilian states: AC Acre; AM Amazonas; AP Amapá; GO Goiás; MA Maranhão; MT Tato Grosso; PA Pará; RO Rondonia		

Table 1: Subgroups of Tupí-Guaraní family

## 1.1 Typological features

Typologically this language family is characterized by head-marking with no dependent-marking to distinguish subjects from objects. The word order in independent clauses is flexible, the most likely basic word order being \*SOV or \*SVO (Jensen, 1998). There is a split-ergative cross-referencing system in transitive verbs as well as an active/stative distinction in intransitive verbs (see Section 2). A set (Set 1) of prefixes which marks A (subject of transitive verb) and S (subject of intransitive verb) occurs only with independent verbs. Another set of person markers (Set 2) which marks S and O (object of transitive verb) occurs with both independent and dependent verbs. In subordinate clauses the verbs have absolute cross-referencing and occur in final position. The same set of person markers which cross references S and O is also used to refer to a pronominal genitive on nouns and the object of postpositions. A set of coreferential prefixes (Set 3) occurs in basically the same syntactic contexts as the markers of this set (2), except for independent verbs, when the referent is also the subject of the independent clause (Section 4). There is no indirect discourse in Tupí-Guaraní languages, hence no logophoric reference, nor is there a passive construction.

## 1.2 Coreferential marking in a nutshell

In English coreferential marking is only explicit and obligatory when a pronominal object, either of the verb (ex. 1) or of a preposition (ex. 2), is identical with the subject.

(1) He killed him. > He killed *himself*.

(2) He bought the car for him. > He bought the car for *himself*.

In this case a special set of pronouns replaces the accusative pronouns. A complete paradigm exists: *myself, ourselves, yourself, yourselves, himself, herself, itself, themselves*.

When a pronominal genitive is identical with the subject, no special form exists, making the referent ambiguous. This is clarified by the optional addition of the word *own*:

(3) He returned to his house. > He returned to *his (own)* house.

The word *own* may occur with any possessive pronoun: *my (own), our (own), your (own), his (own), her (own), its (own), their (own)*.

In Portuguese special forms exist only for third person pronouns, *se* (object of verb) and *si* (argument of the preposition), and are unaltered by gender or number. The existence of forms only for third person is not surpris-

ing since only third person presents any potential ambiguity.

(4) Ele *o* matou. > Ele *se* matou.  
he him killed he himself killed

(5) a) Ele comprou *o* carro para ele. >  
he bought the car for him

b) Ele comprou *o* carro para *si* (*mesmo*).  
he bought the car for himself (specifically)

However, to emphasize the coreferential relationship in prepositional phrases, regardless of the person or number, it is possible to add the word *mesmo* after the pronoun.

Like English, there is no special form for a coreferential pronominal genitive. But the coreferential relationship can be clarified by the addition of the word *própria*.

(6) a) Ele voltou para *sua* casa. >  
he returned to his/her house

b) Ele voltou para *sua (própria)* casa.  
he returned to his (own) house

In both languages the trigger for coreferential marking is the subject, and the targets, i.e. the arguments which are recipients of such marking, are pronouns (Wiesemann 1986:442).

In Tupí-Guaraní languages coreferential marking is expressed by a reflexive morpheme \**je-* (and its reciprocal counterpart \**jo-*) and by a complete set (in various languages and in the protolanguage) of what I refer to as coreferential prefixes: \**wi-* '1SG', \**oro-* '1EX', \**jere-*<sup>1</sup>'1IN', \**e-* '2SG', \**peje-* '2PL', and \**o-* '3'.

When the direct object is identical with the subject, the reflexive prefix \**je-* is combined with the transitive verb stem, resulting in an intransitive verb:

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<sup>1</sup>Data from languages in subgroups 4 and 7 suggest that the reconstruction should be \**jere-* while data from languages in subgroup 5 suggest \**jare-*. Rodrigues (personal communication) prefers the latter reconstruction, explaining the forms based on \**jere-* as a case of vocalic assimilation, reinforced by analogy with \**peje-*. I prefer the reconstruction \**jere-*, which occurs in a larger number of languages, and explain the forms based on \**jare-* as a case of analogy with \**ja-* and \**jané*.

- (7) \*o-i-potár<sup>2</sup>  
3A-3O-like<sup>3</sup>  
'he likes him/her/it'
- >
- \*o-je-potár  
3A-REFL-like  
'he likes himself'

The coreferential object of a postposition is formed by the combination of one of the set of coreferential prefixes, together with the reflexive prefix, and the postposition:

- (8) a) \*o-i-pycyk i-cupé<sup>4</sup>  
3A-3O-grasp 3-for  
'He grasped it for him (other).'
- b) \*o-i-pycyk o-je-upé  
3A-3O-grasp 3COR-REFL-for  
'He grasped it for himself.'

The coreferential pronominal genitive is expressed by one of the set of coreferential prefixes:

- (9) a) \*i-čy o-s-epják 'He/she saw his/her mother (someone else's).'  
3-mother 3A-3O-see

<sup>2</sup>An attempt has been made to follow the conventions used for practical orthographies of Tupí-Guaraní languages in Brazil. In these languages the letter *y* is used to represent the high central unrounded vowel [ɨ] and an apostrophe (') represents the glottal stop. The pronunciation of the phoneme written as *j* ranges from a voiced alveopalatal affricate in the Guarani languages to a semivowel in Wayampi. Other symbols which appear in this paper are *x* [č] in Tapirapé and Guarani, *á* [ə] in Guajajára, semivowels *i* and *ü* in Kayabí, *g* [ŋ] in several languages, *v* [β] in several languages.

<sup>3</sup>Linguistic abbreviations: In relation to word order: SOV Subject, Object, Verb. In relation to referent of person markers: A subject of transitive verb, O object of intransitive verb, S subject of intransitive verb, S<sub>a</sub> subject of agentive intransitive verb, S<sub>o</sub> subject of nonagentive transitive verb. 1SG first person singular, 1EX first person exclusive, 1IN first person inclusive, 2SG second person singular, 2PL second person plural, 3 third person. 1A+2PL.O portmanteau morpheme referring simultaneously to first person A and second person O. Grammatical morphemes: CAUS causative, CC comitative causative, COMPL completive, COND conditional, COR coreferential, DAT dative, EMPH emphatic, FUT future, FUTL futility (modal particle), HRSY heresy (evidentiality particle), IMPERS impersonal referent, INTER (interrogative), IRREAL irrealis, LK linking (relational) morpheme, NC nominal case, NEG negative, NOM nominalizer, nonCOR non-coreferential, PUNC punctual, REFL reflexive, SER dependent serial verb, WH when (temporal subordinator), X (in gloss, unspecified A).

<sup>4</sup>Data from some of the more conservative languages, including Tupinambá, suggest the reconstruction of the form \*cupé, whereas others suggest \*upé. Many languages give evidence of the early insertion of a semivowel following the third person prefix: \*i-upé > \*i-jupé. However, I have not encountered data, even from Tupinambá, which suggests that the coreferential form should be \*o-je-cupé rather than \*o-je-upé.

- b) \*o-čy o-s-epják 'He/she saw his/her own mother.'  
3COR-mother 3A-3O-see

In the syntactic contexts where coreferential prefixes occur, they are obligatory, thus reducing the potential for ambiguity in a language family which already has other sources of ambiguity, such as flexibility in word order, which sometimes leaves doubt as to syntactic role when A and O are both third person, and lack of gender. For example, in the following example, \*i-čy can be interpreted as either subject or object, and the \*i- 'third person' gives no indication of gender or number.

- (10) \*i-čy o-c-epják  
3-mother 3A-3O-see

'He/she saw his/her (of another person) mother.' OR  
'His/her mother met him/her.'

Like English and Portuguese, the trigger for coreferential marking is the subject. However, the range of targets is more extensive: it is any structure which would normally receive Set 2 person markers (noun, dependent verb, or postposition) where the referent is also coreferential with the subject. In the case of verbs (subordinate or serial) the cross referencing is absolutive, referring to S or O (Dixon 1994:8-9), as in example 11:

- (11) a) \*o-'ár i-pycyk-VmV 'He fell when (someone) grabbed him[nonCOR].'  
3S-fall 3O-grab-WH

- b) \*o-'ár o-pycyk-VmV 'He fell when (someone) grabbed him [COR].'  
3S-fall 3COR-grab-WH

This is an unusual situation grammatically, with the trigger defined on a nominative-accusative basis, at the syntactic level, and the target defined on an ergative-absolutive basis:

TRIGGER	Nominative	A	Ergative	TARGET
TRIGGER	Nominative	S	Absolutive	TARGET
	Accusative	O	Absolutive	

### 1.3 Versions of coreferential system

As I will show in this paper, some languages have a complete paradigm of coreferential prefixes, even though only the third person referents are potentially ambiguous, and these are used in a wide variety of syntactic contexts. Others have only the third person prefix, which is used in a reduced number of syntactic contexts. In this group of languages, the absolutive cross-referencing system has been largely replaced by the mixed system used with independent verbs (Section 3.1), with a consequent elimination of the context

in which the coreferential prefixes originally occurred. Individual Tupí-Guaraní languages fit into one of four possible categories:

**Maximal:** Complete paradigm of coreferential prefixes; coreferential referencing extended to subordinate clause.

**Transitional:** Reduction in the number of coreferential prefixes AND/OR coreferential referencing not extended to subordinate clause.

**Minimal:** Only one coreferential prefix (third person); limited or no coreferential prefixing on verbs other than nominalized forms.

**Nonexistent:** Complete elimination of coreferential prefixing.

## 2. Person marker sets

In spite of the widespread geographical distribution there is a large degree of homogeneity within the language family in the area of basic vocabulary and grammatical morphemes, making the morphological reconstruction fairly straightforward for the most part, even though the function of these grammatical morphemes may vary from language to language. This is the case with the four sets of person markers (especially the first two sets) which are an important point of departure for any discussion of Tupí-Guaraní morphosyntax. The reconstructed forms of these person markers for Proto-Tupí-Guaraní (P-T-G) appear in the following table (Jensen, 1990):<sup>5</sup>

	Set 1 A/S	Set 2 O/S	Set 3 COR O/S	Set 4 portmanteau A+O
1SG	*a-	*čé <sup>6</sup>	*wi-	
1EX	*oro-	*oré	*oro-	
1IN	*ja-	*jané	*jere-	
2SG	*ere-	*né	*e-	*oro-(1A+2SG.O)
2PL	*pe-	*pé	*peje-	*opo-(1A+2PL.O)
3	*o-	*i-/c-	*o-	

Table 2: Proto-Tupí-Guaraní person marker sets

<sup>5</sup> No reconstruction can be done without the extensive preliminary descriptive field work by many linguists in many languages. Each of these linguists deserves my thanks. The languages on which my reconstruction was based include the following: Subgroup I Chiriguano (also called Bolivian Guarani), Kaiwá, Old Guarani, Mbyá Guarani; Subgroup II Guarayu; Subgroup III Tupinambá; Subgroup IV Assurini do Tocantins (also called Assurini do Trocará), Guajajára, Tapirapé; Subgroup V Kayabí; Subgroup VI Parintintín; Subgroup VII Kamaiurá; and Subgroup VIII Urubu-Kaapor, Wayampi. Reconstruction data can be found in Jensen (1989) and (1998).

<sup>6</sup> The person markers for first and second person in Set 2 are identical with, or reductions of, free pronouns. They are reconstructed as being independent morphemes with independent stress, but in some languages these have become prefixes. The third person prefixes are not derived from pronouns, but occur in complementary distribution with the first and second person markers.

The more conservative languages have a mixed cross-referencing system with independent transitive verbs, using Sets 1, 2, and 4. They have a split-S system for intransitive verbs, using Sets 1 and 2. In all other verb constructions they are cross referenced by an ergative-absolutive system, using Set 2 person markers unless the referent (S or O) is coreferential with the subject (S or A) of the main clause. In this case they use Set 3 prefixes. This same system (using Sets 2 and 3) is also used to refer to the pronominal possessor of nouns and the pronominal argument of postpositions.<sup>7</sup> Some of the more innovative languages (those in the minimal category) have eliminated the first and second person markers of Set 3, which is the coreferential set. They have extended the use of prefix Set 1 (A/S) for transitive and agentive intransitive verbs (S<sub>a</sub>) so that it occurs in certain syntactic environments which traditionally required O/S marking (Set 2 or 3). In this substitution the \*o- prefix from Set 3 has been reinterpreted as belonging to Set 1. With nouns, postpositions, and nonagentive intransitive verbs (S<sub>o</sub>) the Set 2 paradigm has replaced that of Set 3 for first and second persons. In some of the languages in the transitional category, Set 2 rather than Set 1 prefixes have replaced first and second person markers from Set 3.

Besides these four person marker sets, there is a pair of prefixes, \*je- 'reflexive' and \*jo- 'reciprocal'. These have been fused in Guajajára and Wayampi to reflexes of \*je- and in Urubu-Kaapor to the reflex of \*jo-.

In this paper I will provide a syntactic context for the description of coreferential prefixes by describing the non-coreferential prefixes and the environments in which they occur (Section 3). I will also describe the reflexive and reciprocal prefixes, since these also contribute to the overall coreferential system (Section 4). In Section 5 I will give a detailed description of the syntactic environments in which coreferential marking occurs. In these sections (3-5) I will largely use reconstructed forms for Proto-Tupí-Guaraní. Finally I will give a detailed description of the use of coreferential marking according to the categories outlined on the previous page: Maximal (Section 6), Transitional (Section 7), Minimal (Section 8) and Nonexistent (Section 9), using data from representative languages. My conclusions (Section 10) will include the implications for this study in relation to the present tentative subgrouping of languages. Questions for potential further study deal with the origins of the coreferential prefixes and the use of coreferential marking beyond the sentence level for discourse purposes in some languages (Section 11).

<sup>7</sup> This system is discussed in detail in Jensen (1990), Jensen (1998), Harrison (1986), and Dixon (1994).

### 3. The syntactic context of the trigger

The trigger for coreferential marking is the subject (A or S) of the main verb in an independent clause. Thus the trigger is defined on a nominative-accusative basis, even though the overall cross-referencing system in Tupí-Guaraní languages involves various sorts of cross-referencing splits, as will be described in Sections 3 and 5. Whereas it is not unusual cross-linguistically that the trigger should be nominative-accusative, it is probably quite unusual that the verbal constructions which are the recipients, or targets, of coreferential marking follow an ergative-absolutive cross-referencing system.

Depending on the syntactic environment, the main verb in an independent clause may occur as one of two types: independent (Section 3.1) or oblique-topicalized (Section 3.2).

#### 3.1 Independent verbs

Cross referencing on independent verbs is done through split systems: a split-S system in intransitive verbs and a split-ergative system governed by a person hierarchy in transitive verbs. In intransitive verbs, Set 1 (A/S) prefixes occur on more agent-like verbs (ex. 12) and Set 2 (O/S) prefixes occurring on the more object-like ones (ex. 13). As can be seen in example 13, stems are subdivided into two separate classes when they combine with person markers of Set 2. Those of Class 2 require the relational prefix *\*r-* when the stem is preceded by person markers of first or second person. (Following the second person plural person marker an allomorph *\*n-* is used.) For third person, this class combines directly with the allomorph *\*c<sup>8</sup>*, whereas Class 1 stems take the *\*i-* allomorph. Although the two stems in example 12 are from separate classes, there is no difference in the prefixing from Set 1.

##### (12) Independent intransitive verbs (S<sub>a</sub>)

<i>*a-có</i>	'I went'	<i>*a-ikó</i>	'I am (in motion)'
<i>*oro-có</i>	'we EX went'	<i>*oro-ikó</i>	'we EX are (in motion)'
<i>*ja-có</i>	'we IN went'	<i>*ja-ikó</i>	'we IN are (in motion)'
<i>*ere-có</i>	'you SG went'	<i>*ere-ikó</i>	'you SG are (in motion)'
<i>*pe-có</i>	'you PL went'	<i>*pe-ikó</i>	'you PL are (in motion)'
<i>*o-có</i>	'he/she/it/they went'	<i>*o-ikó</i>	'he/she/it/they is/are (in motion)'

##### (13) Independent intransitive verbs (S<sub>a</sub>)

<i>Class 1</i>	<i>Class 2</i>
<i>*čé katú</i>	'I am good'
<i>*oré katú</i>	'we EX are good'
<i>*jané katú</i>	'we IN are good'
<i>*né katú</i>	'you SG are good'
<i>*pé katú</i>	'you PL are good'
<i>*i-katú</i>	'he/she/it/they is/are good'
	<i>*čé r-orýβ</i> 'I am happy'
	<i>*oré r-orýβ</i> 'we EX are happy'
	<i>*jané r-orýβ</i> 'we IN are happy'
	<i>*né r-orýβ</i> 'you SG are happy'
	<i>*pé n-orýβ</i> 'you PL are happy'
	<i>*c-orýβ</i> 'he/she/it/they is/are happy'

For transitive verbs there is a direct-inverse system, governed by a person hierarchy (in general terms, 1>2>3). When O is third person, both A and O prefixes occur on the verb: A is marked by the same set used to mark S<sub>a</sub>. This prefix, from Set 1, is followed by the third-person O prefix from Set 2 (ex. 14). As in example 13, the class of the stem determines the form of the third person O prefix. In example 14 A is either hierarchically superior to or equal to O. When both are third person, they are not coreferential.

##### (14) Independent transitive verbs (A - O3)

<i>Class 1</i>	<i>Class 2</i>
<i>*a-i-potár</i>	'I like[3]'
<i>*oro-i-potár</i>	'we EX like[3]'
<i>*ja-i-potár</i>	'we IN like[3]'
<i>*ere-i-potár</i>	'you SG like[3]'
<i>*pe-i-potár</i>	'you PL like[3]'
<i>*o-i-potár</i>	'[3] like(s)[3]'
	<i>*a-c-epják</i> 'I saw [3]'
	<i>*oro-c-epják</i> 'we EX saw [3]'
	<i>*ja-c-epják</i> 'we IN saw [3]'
	<i>*ere-c-epják</i> 'you SG saw [3]'
	<i>*pe-c-epják</i> 'you PL saw [3]'
	<i>*o-c-epják</i> '[3] saw [3]'

The object prefixes occur regardless of whether a free nominal object is present in the clause, as in the following examples from Tupinambá (ex. 15):

(15) <i>kunumĩ a-i-nupã</i>	'I beat the boy.'
<i>a-i-nupã kunumĩ</i>	'I beat the boy.'

An object may also be incorporated in the verb. In this situation the verb is detransitivized, provided the object is not possessive, and the object prefix does not occur, as in Tupinambá:

(16) <i>a-kunumĩ-nupã</i>	'I boy-beat.'
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When A is hierarchically inferior to O, only O is marked on the verb, using Set 2 prefixes (example 17). This is an indirect system. In this case the A, which is not expressed morphologically by verbal cross referencing, may be either third or second person, but not first person. Once again, the stems from Class 2 require the relational prefix *r-*.

<sup>8</sup>A few Class 2 stems, mostly nouns, take a *\*t-* prefix instead of *\*c-*.

## (17) Independent transitive verbs (O&gt;A)

<i>Class 1</i>	<i>Class 2</i>
*čé potár '(2) or (3) likes me'	*čé r-epják '(2) or (3) saw me'
*oré potár '(2) or (3) likes us EX'	*oré r-epják '(2) or (3) saw us EX'
*jané potár '(3) likes us IN'	*jané r-epják '(3) saw us IN'
*né potár '(3) likes you SG'	*né r-epják '(3) saw you SG'
*pé potár '(3) likes you PL'	*pé n-epják '(3) saw you PL'

Note that the O is never third person, since it must be hierarchically superior to A. In the following examples from Tupinambá, the third person A is expressed by a free noun preceding or following the verb, as in examples 18–19, and the hierarchically superior O is expressed on the verb.

- (18)   kunumí né r-epják                     ‘The boy saw you..’  
       né r-epják kunumí                     ‘The boy saw you..’
- (19)   sjé nupā sjé r-uβ-a                     ‘My father beat me.’  
       sjé r-uβ-a sjé nupā                     ‘My father beat me.’

When A is second person this is indicated by a separate word: \*jepe ‘2SG’ or \*pejepé ‘2PL’, as in the following example from Tupinambá.<sup>9</sup>

- (20)   (ndé) sjé r-epják jepé             ‘You saw me.’  
       (2SG) 1SG LK-see- 2SG.A

When both A and O are speech-act participants, and A is hierarchically superior to O (i.e. 1st person A and 2nd person O), Set 4 prefixes are used to indicate A and O jointly (example 21). Like the prefixes from Set 1, these prefixes are not affected by stem class.

## (21) Independent transitive verbs (A1 + O2)

<i>Class 1</i>	<i>Class 2</i>
*oro-potár ‘I/we like you SG’	*oro-epják ‘I/we saw you SG’
*opo-potár ‘I/we like you PL’	*opo-epják ‘I/we saw you PL’

In sum, the system used with independent transitive verbs, as reconstructed for Proto-Tupí-Guaraní, may be described as a combination direct (example 14), inverse (example 17), and portmanteau (example 21) systems. Set 1 and Set 4 prefixes are used only in this context.

<sup>9</sup>When A is second person and O is first person, many languages indicate the A through a separate word derived from the protoforms \*jepe ‘2SG.A’ or \*pejepé ‘2PL.A’ rather than the normal free pronouns \*ené and \*pe...ē, respectively. A similarity to the coreferential (Set 3) prefixes \*e- and \*pejepé suggests a possible path of derivation. In this case, it would seem more accurate to describe them as forms coreferential with A rather than forms directly indicating A itself.

This system is used by the majority of Tupí-Guaraní languages in independent verbs, that is, in the main verb of independent clauses. Phonologically the main variation is that \*č and \*c have weakened in various languages, resulting in s, h, or 0, which are merged in all but subgroup 1. Morphologically the main variation is that in a number of languages (subgroups 4–8) the third person O prefix (\*i- or \*c-) does not co-occur with the prefixes of Set 1 in transitive verbs, resulting in forms like *a-potar* instead of \**a-i-potár*. Besides this, there is variation in the form of the Set 4 prefix \**opo*- (Jensen 1987).

Even when A is not cross referenced on a transitive verb, it still acts as the trigger for coreferential marking.

### 3.2 Oblique-topicalized verbs

When an oblique (adverb, postpositional phrase, or temporal subordinate clause) is fronted to the initial position of an independent clause for discourse purposes, the main verb occurs in the oblique-topicalized (OBTOP) form (Harrison 1986:417). This verb requires ergative-absolutive cross-referencing, and occurs with an OBTOP suffix. In some languages (Guajajára and Kamaiurá) this construction occurs only when the subject is third person, in others (Tupinambá (ex. 22–24), Xingu Asuriní, and Kayabi), when the subject is either first or third. When the subject is second person (or possibly first person), only the independent verb form occurs. When S or O in the form of a noun directly precedes the verb, no person markers need occur on the verb, as in example 24.

- (22)   kxesé i-só-w  
       yesterday 3-go-OBTOP  
       ‘Yesterday he went.’
- (23)   kxesé pajé sjé subán-i  
       yesterday shaman 1SG suck-OBTOP  
       ‘Yesterday the shaman treated me (by sucking).’
- (24)   kó pajé r-ekó-w  
       here shaman LK-be-OBTOP  
       ‘Here is the shaman.’

## 4. Reflexive and reciprocal prefixing

### 4.1 On verbs

When the object of a transitive verb is coreferential with the subject, a reflexive prefix \*je- (ex. 26) is used. This prefix occurs in the same position

as, and therefore contrasts with, the use of the third person object prefix (ex. 25). It is a valence-changing prefix, detransitivizing a TV and making the A and its coreferential O into a S.<sup>10</sup> Consequently in independent verbs it occurs only with prefixes of Set 1.

(25)	* a- <i>i</i> -potár	'I like [3]' <b>Third person object</b>
(26)	* a- <i>je</i> -potár	'I like myself' <b>Reflexive</b>
	* oro- <i>je</i> -potár	'we EX like ourselves'
	* ja- <i>je</i> -potár	'we IN like ourselves'
	* ere- <i>je</i> -potár	'you SG like yourself'
	* pe- <i>je</i> -potár	'you PL like yourselves'
	* o- <i>je</i> -potár	[3] like(s) [3]self/selves'

Actions performed on one's own body parts require the reflexive marker when the object is incorporated into the verb construction, as in the following example from Wayampi:<sup>11</sup>

(27)	a-ji-po-kusu	
	1SG-REFL-hand-wash	
	'I washed my hands.'	

Without the reflexive the incorporated possessible object is interpreted as belonging to someone else, as in example 28. In this case the possessor is raised to the position of direct object and the verb remains transitive, in contrast to the example 16, where the incorporated noun is nonpossessible.

(28)	a-po-kusu <sup>12</sup>	
	1SG-hand-wash	
	'I washed his/her hands.'	

Parallel to the reflexive prefix is a reciprocal prefix \**jo*-, which of necessity combines only with plural person markers, as in example 29.

(29)	* oro- <i>jo</i> -potár	'we EX like each other' <b>Reciprocal</b>
	* ja- <i>jo</i> -potár	'we IN like each other'
	* pe- <i>jo</i> -potár	'you PL like each other'
	* o- <i>jo</i> -potár	[3] like each other'

It appears that all Tupí-Guaraní languages retain the use of a reflexive prefix for coreferential objects. Therefore no further discussion will be made of

<sup>10</sup>Sometimes the reflexive prefix is used to deemphasize the subject. Hence, the verb \*a-*je-mo* 'e has two possible translations: 'I learned, I taught myself'.

<sup>11</sup>Object incorporation only reduces the valency of the verb when the object is not possessible. When the object is possessible, the possessor becomes the direct object.

<sup>12</sup>In PTG this might have the third person prefix \**i*- following the subject prefix \*a-.

them in this paper, except to mention that three Tupí-Guaraní languages have eliminated the \**je*-/*jo*- contrast. In Guajajára and Wayampi the reflex of \**je*- is retained, and with a plural subject it can mean either reflexive or reciprocal. In Urubu-Kapor the reflex of \**jo*- is retained. In example 30, the form in the three languages has the two possible interpretations.

(30)	oro- <i>ji</i> -pota (WA)	‘we EX like ourselves’		Reflexive
	uru- <i>ze</i> -putar (Gj)	‘we EX like each other’	{	Reciprocal
	uru- <i>ju</i> -putar (Ur)			

## 4.2 On postpositions

The reflexive and reciprocal prefixes also occur in postpositional phrases, in combination with coreferential prefixes, when the argument of the phrase is coreferential with the subject, as in example 31. This is discussed in further detail in Section 5.4.

(31)	*o- <i>je</i> -pypé	‘inside himself’
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In sum, the reflexive and reciprocal prefixes occur in the following constructions:

- Verbs when the O is coreferential with the subject.
- Verbs when the possessor of an incorporated object is coreferential with the subject.
- Postpositions, in combination with coreferential prefixes, when the argument is coreferential with the subject.

## 5. The target constructions for coreferential prefixing

In Proto-Tupí-Guaraní and in the conservative languages of the family the cross referencing on all dependent verb forms (subordinate verb, serial verb, or nominalization) is absolute (referring to S in intransitive verbs and O in transitive verbs). This cross referencing is done by the person markers of Set 2, provided the referent is not coreferential with the subject (A or S) of the main verb. There is no split-S contrast in this context nor is the person \**ore* hierarchy in operation, as can be seen in examples 32- 34.

(32) Dependent intransitive verbs ( $S_a$ )*Class I*

	<i>Class II</i>
* čé có	'I go'
	'we EX go happy'
* jané có	'we IN go'
* né có	'you SG go'
* pé có	'you PL go'
* i-có	[3] goes'
	*čé r-ekó
	*oré r-ekó
	*jané r-ekó
	*né r-ekó
	*pé n-ekó
	*c-ekó

(33) Dependent intransitive verbs ( $S_o$ )*Class I*

	<i>Class II</i>
* čé katú	'I am good'
* oré katú	'we EX are good'
* jané katú	'we IN are good'
* né katú	'you SG are good'
* pé katú	'you PL are good'
* i-katú	[3] is/are good'
	*čé r-orýβ
	*oré r-orýβ
	*jané r-orýβ
	*né r-orýβ
	*pé n-orýβ
	*c-orýβ

## (34) Dependent transitive verbs (O)

*Class I*

	<i>Class II</i>
* čé potár	'X likes me'
* oré potár	'X likes us EX'
* jané potár	'X likes us IN'
* né potár	'X likes you SG'
* pé potár	'X likes you PL'
* i-potár	'X likes [3]'
	*čé r-epják
	*oré r-epják
	*jané r-epják
	*né r-epják
	*pé n-epják
	*c-epják

The possessor on nouns and the argument of a postposition are also referenced by Set 2 markers. If the referent of the dependent verb, noun, or postposition is coreferential with A or S, a coreferential prefix from Set 3 is used instead of the normal Set 2 markers, as in example 35.

- (35) \* wi-có                    'I went [COR]'  
       \* oro-có                    'we EX went [COR]'  
       \* jere-có                    'we IN went [COR]'  
       \* e-có                      'you SG went [COR]'  
       \* peje-có                  'you PL went [COR]'  
       \* o-có                      '[3] went [COR]'

The *r-* morpheme does not occur in this context with Class II stems.

However, with certain stems a *t-* occurs between \*wi- and the stem, as in example 36.

- (36) \*wi-t-ekó                  'I am (in motion) [COR]'

The following sections describe the normal and the coreferential marking of subordinate verbs (4.1), dependent serial verbs (4.2), nouns (4.3), and postpositions (4.4).

### 5.1 Subordinate verbs

Subordinate clauses, indicated by brackets in the examples, are used in Tupí-Guaraní languages to indicate information of a temporal nature (simultaneous or sequential). In this type of construction the verb occurs in final position, suffixed by a temporal subordinate marker \*-(*r*)VmV<sup>13</sup> 'simultaneous/conditional' or \*-(*r*)ire 'sequential'. Subordinate clauses most frequently occur preposed in relation to the independent clause, although data from some languages show them in a postposed position as well. If they are preposed, the verb from the independent clause must take the oblique-topicalized form if its subject is third (and possibly first) person, as in the following examples from Tocantins Asurini.

- (37) [se-nopo-ramo] ere-poka    'When X beat me, you laughed.'  
     1SG-beat-WH 2SG-laugh

- (38) [se-ha-ramo] i-ha-potar-i se-r-opi  
     1SG-go-WH 3-go-FUT-OBTOP 1SG-LK-with  
     'When I go, he will go with me.'

#### 5.1.2 Normal cross referencing on subordinate verbs

The verb is normally cross-referenced by a person marker from Set 2 (ex. 39) or by a noun immediately preceding the verb stem (ex. 40).

- (39) \*čé có-rVmV                'if/when I go'                             $S_a$   
       \*čé katú-rVmV              'if/when I am good'                     $S_o$   
       \*čé r-epják-VmV            'if/when X sees me'                    O

- (40) \*kunumí có-rVmV<sup>14</sup>      'if/when the boy goes'                     $S_a$   
       \*kunumí katú-rVmV        'if/when the boy is good'             $S_o$   
       \*kunumí r-epják-VmV      'if/when X sees the boy'            O

<sup>13</sup> The vowels in the morpheme marking subordinate clauses cannot be reconstructed. Some languages have forms like *ramo* while others have forms like *reme*.

<sup>14</sup> The vowels in the morpheme marking subordinate clauses cannot be reconstructed. Some languages have forms like *ramo* while others have forms like *reme*.

### 5.1.3 Coreferential marking on subordinate verbs

Coreferential marking on subordinate verbs, as I am reconstructing it for Proto-Tupí-Guaraní, involves a complete paradigm, including all the forms listed in example 35 (and in Set 3 of Table 2). This represents the pattern which I describe for Maximal use languages (Section 6); there are other languages which use only the third person prefix in this context.

In the pairs of examples in (41-42), the subordinate verb is agentive intransitive. When the subject of the independent verb is first or third person I am putting it in the OBTOP form because of the preposed subordinate clause.<sup>15</sup> In the sentences marked a), the S<sub>a</sub> the subordinate verb is not coreferential with the subject of the main clause. Therefore the normal Set 2 person markers are used. In the examples marked b), the S of the subordinate verb is coreferential with the subject of the main verb. Therefore the subordinate verb receives coreferential prefixes. The same is true for examples (43-44), in which the subordinate verb is nonagentive intransitive.

- (41) a) \*[čé có-rVmV] i-'ár-i      'when I came [nonCOR] he fell'
- b) \*[wi-có-rVmV] čé 'ár-i      'when I went [COR] I fell'
- (42) a) \* [né có-rVmV] i-'ár-i      'when you SG went [nonCOR] he fell'
- b) \*[e-có-rVmV] ere-'ár      'when you went [COR] you SG fell'
- (43) a) \*[i-katú-rVmV] c-orýβ-i      'when he [nonCOR] is good he is happy'
- b) \*[o-katú-rVmV] c-orýβ-i      'when he [COR] is good he is happy'
- (44) a) \*[jané katú-rVmV] c-orýβ-i 'when we IN are good [nonCOR] he is happy'
- b) \*[jere-katú-rVmV] jané r-orýβ-i 'when we IN are good [COR] we IN are happy'

In the pairs of examples in (45-46), the subordinate verb is transitive. Therefore it cross references O. In the sentences marked a), the O of the subordinate verb is not coreferential with the subject of the independent clause. Therefore no coreferential prefix is used. In the sentences marked b), the O of the subordinate verb is coreferential with the subject of the independent clause and therefore receives a coreferential prefix.

- (45) a) \*[oré pycyk-VmV] i-'ár-i      'when he grabbed us EX [nonCOR] he fell'
- b) \*[oro-pycyk-VmV] oré 'ár-i      'when he grabbed us EX [COR] we fell'

<sup>15</sup> In some languages the subordinate clauses are predominantly preposed as in exs. 41-44. Ex. 11 is comparable to exs. 45-46 except that the subordinate is shown in postposed position.

- (46) a) \*[pé pycyk-VmV] i-'ár-i      'when he grabbed you PL[nonCOR] he fell'
- b) \*[peje-pycyk-VmV] pe-'ár      'when he grabbed you PL [COR] you PL fell'

Some languages, such as Old Guarani (D. Rodrigues 1997) and Tocantins Asurini (Nicholson 1978), have a restriction which disallows the use of subordinate clauses when the S or A is coreferential with the S or A of the independent clauses. In these cases there is a split between subordinate verbs for non-coreferential subjects and dependent serial verbs (next section) for coreferential subjects. However, there are many languages which do not have this restriction for subordinate clauses.

### 5.2 Serial verb constructions

In Tupí-Guaraní languages an action or a series of actions having the same subject may be perceived as part of a single event and expressed as a series of verbs in a single clause. The initiating verb (indicated by underlining in the examples) in the series takes the independent (ex. 47, from Tupinambá) or oblique-topicalized (ex. 48, from Tupinambá) form and is cross-referenced accordingly (i.e., by the same system as described in Section 2.1 or 2.2). This verb is followed by what in most languages of the family is a dependent verb (italicized),<sup>16</sup> which receives absolute cross-referencing. I am referring to this as a serial verb construction, in spite of the dependency marking on the non-initiating verb.<sup>17</sup>

- (47) o-úr kunumī *r-epják-a*  
3-come boy LK-see-SER  
'He came to see the boy.'

- (48) kó sjé anám-a      r-úr-i      pá né r-apé pe  
here 1SG relative-NC LK-come-OBTOP all 2SG LK-path to  
  
né *r-epják-a*  
2SG LK-see-SER  
'All my relatives came here to your path, to see you.'

<sup>16</sup> This verb receives a suffix which has various allomorphs: -a following a C, \*-aβo following a V, and \*-ta following the semivowel \*j. These allomorphs are subject to further morphophonemic rules, including nasalization of the consonant in \*-ta and \*-aβo, and absorption of the initial vowel in the form \*-aβo.

<sup>17</sup> What I am referring to as a serial verb construction has the following properties of a single predicate: the verbs refer to aspects of a single event, they have shared tense/aspect markings, they have a single subject, and sometimes they have a shared object as well. However, in the proto-language and many, but not all, of the dependent languages, there is a suffix showing dependency on all but the initial verb. The verb with the dependency suffix is referred to by Rodrigues in Portuguese as a *gerúndio*; in English this would be more accurately called a participle. Dooley (1991) refers to the construction as a "double verb construction."

In some languages, such as Tocantins Asuriní, certain verbs, such as those which mean ‘come’ and ‘to be (in motion)’, have become grammaticalized to convey aspectual information, such as direction and continuous action, and developed into a distinct set of auxiliary verbs. In some languages, such as Wayampi, the dependency marking has been eliminated in all of the formerly dependent serial verbs.

### 5.2.1 Transitive dependent serial verbs

The initiating verb may be either intransitive (as in the examples above) or transitive (examples 49–50). The shared subject is marked on the independent serial verb as permitted by cross-referencing rules. In example 48, where the initiating verb takes the oblique-topicalized form, S is referred to only by a noun directly preceding the verb. In example 50, O rather than A is cross-referenced on the independent verb because of the hierarchy rule. The shared subject is not cross-referenced on either of the verbs, neither on the initiating verb because of the person hierarchy nor on the dependent transitive verb because of the absolute cross-referencing.

- (49) \**a-i-nupã i-juká-βo*

1SG-3-beat 3-kill-SER  
'I beat it and killed it.'

- (50) \**čé pycýk čé nupã-mo*

1SG grab 1SG beat-SER  
'(Someone) grabbed me and beat me.'

Some languages (Tupinambá and Mbyá Guarani) allow the portmanteau prefixes (example 21) to occur with the dependent transitive verb.

### 5.2.2 Coreferential marking on intransitive dependent serial verbs

When the dependent serial verb is intransitive, the coreferential subject is referenced, using the special set of coreferential makers. A complete paradigm follows in example 51. The independent verb form of ‘I sleep’ is \**a-kér*, whereas the dependent serial verb form is \**wi-kér-a*.

- |      |                 |                   |                         |
|------|-----------------|-------------------|-------------------------|
| (51) | * <i>a-có</i>   | <i>wi-kér-a</i>   | 'I went and slept'      |
|      | * <i>oro-có</i> | <i>oro-kér-a</i>  | 'we EX went and slept'  |
|      | * <i>ja-có</i>  | <i>jere-kér-a</i> | 'we IN went and slept'  |
|      | * <i>ere-có</i> | <i>e-kér-a</i>    | 'you SG went and slept' |
|      | * <i>pe-có</i>  | <i>peje-kér-a</i> | 'you PL went and slept' |
|      | * <i>o-có</i>   | <i>o-kér-a</i>    | '[3] went and slept'    |

Non-agentive intransitive serial verbs also receive the coreferential markers, but a different suffix (*-ramo/-amo*) is used to indicate the serial verb

construction, as in *wi-katú-ramo* ‘I being good’ or ‘in order for me to be good’.

## 5.3 Nouns

### 5.3.1 Simple nouns

On simple nouns, the Set 2 morphemes are used to indicate a pronominal possessor. This genitive may indicate possession (ex. 52,54), kinship (ex. 53), or whole-part relationships (ex. 55).

(52)	<i>Class I</i>	<i>Class II</i>
	* <i>čé kyčé</i>	'my knife'
	* <i>oré kyčé</i>	'our EX knife'
	* <i>jané kyčé</i>	'our IN knife'
	* <i>né kyčé</i>	'your SG knife'
	* <i>pé kyčé</i>	'your PL knife'
	* <i>i-kyčé</i>	'[3]'s knife'
(53)		
	* <i>čé r-úβ</i>	'my father'
	* <i>oré r-úβ</i>	'our EX father'
	* <i>jané r-úβ</i>	'our IN father'
	* <i>né r-úβ</i>	'your SG father'
	* <i>pé n-úβ</i>	'your PL father'
	* <i>t-úβ</i> <sup>18</sup>	'[3]'s father'

In examples 54–55 a nominal genitive precedes a possessed noun. The genitive, in turn, has a possessive prefix from Set 2. The possessed noun \**kyčé* ‘knife’ is from Class I. The nouns \**úβ* ‘father’ and \**ecá* ‘eye’ are from Class II and therefore have an \**r-* prefix between themselves and the genitive.

- (54) \**t-úβ-a*<sup>19</sup> *kyčé* 'his father's knife'

- (55) \**t-úβ-a r-ecá* 'his father's eye'

### 5.3.2 Coreferential marking on nouns

When the possessor of a noun is coreferential with the subject of the main verb, it is marked with a coreferential prefix. In example 56 a), the possessor (1SG) is not coreferential with the subject (3SG) and therefore it receives a normal Set 2 person marker. In b) the possessor (1SG) is coreferential with the subject and therefore receives a coreferential prefix. Even if the object, rather than the subject, is cross-referenced on the verb, the rule for coreferentiality still depends on the subject. Thus in c) even though the cross-referencing on both the verb and the noun refer to the same person, no coreferential prefixing is used, since the verb cross-references O not A. Conversely, we can say that

<sup>18</sup>This morpheme is from subclass IIb, which has \**t-* instead of \**c-* as a third person prefix.

<sup>19</sup>When a consonant-final nouns occurs syntactically as a noun (i.e. as a subject, object, genitive, or object of a postposition, it receives a ‘nominal case’ suffix \**-a*. Vowel-final nouns occur with a zero suffix.

the object is coreferential, not with A but with the possessor of A, and therefore does not receive coreferential marking.

- (56) a) \*čé cý o-c-epják ‘he saw my mother’ OR ‘my mother saw him’  
 b) \*wi-cý a-c-epják ‘I saw my mother’  
 c) \*čé cý če r-epják ‘my mother saw me’

### 5.3.3 Nominalizations

There are three types of nominalizations which are formed by the addition of a suffix to the verb stems: \*-a ‘nominalizer indicating action (or state, in the case of descriptive verbs)<sup>20</sup>’, \*-áβ ‘nominalizer indicating circumstance (time, place, or instrument)’, and \*-ár ‘nominalizer indicating agent’.<sup>21</sup> Like simple nouns, these nominalizations combine with person markers from Set 2. However, in the case of these nominalizations, the genitive construction refers to the absolute referent of the verb. Example 57 show the nominalization of action or state, combining with person markers from Set 2, which refer to S<sub>o</sub>, S<sub>a</sub>, and O, respectively.

- (57) \*i-katú-i ‘his (state of) being good’  
 \*i-có-i ‘his (action of) going’  
 \*i-potár-a ‘the action of liking him (O)’

The following examples show the use of Set 2 person markers with the nominalizations of circumstance (ex. 58-59) and agent (ex. 60), once again referring to S (ex. 58) or O (ex. 59-60).

- (58) \*čé có-cáβ ‘the circumstances (time or place) of my going’  
 (59) \*čé r-epják-áβ ‘the circumstances (time or place) of my being seen, or of (someone) seeing me’  
 (60) \*né r-epják-ár ‘the person that sees you (SG); your see-er’

Another nominalizing morpheme, which occurs only with transitive verbs, is *emi-* ‘nominalizer indicating object’. This nominalization may also combine

<sup>20</sup> The \*-a morpheme can be looked upon as the combination of a verb with the ‘nominal case’ suffix. It occurs with consonant-final stems, and a zero suffix occurs with vowel-final stems.

<sup>21</sup> In many Tupí-Guaraní languages the form derived from \*-áβ nominalizes both action and circumstance. In the case of the \*-áβ and \*-ár morphemes, \*-cáβ and \*-cár allomorphs occur with vowel-final stems and \*-taβ and \*-táρ allomorphs occur with diphthong-final stems, the semivowel of the diphthong being a palatal.

with the person markers from Set 2. The nominalizer is a Class II morpheme, requiring the \*r- prefix. In this case the genitive refers to the agent (A) of the action, as shown in example 61.

- (61) \*jané r-emi-potár ‘who/what we IN like’

The *emi-* morpheme is unique in being the only nominalizing prefix. This structure is also unique in that the referent of the Set 2 morpheme with which it combines refers to A.<sup>22</sup>

As I have demonstrated, the same set of prefixes may refer to A, O, or S, depending on the type of nominalization and the verb stem with which it combines. Since the coreferential prefixes replace the prefixes of Set 2, it is particularly important to be aware of the grammatical referent of these person markers in nominalizations.

In terms of coreferential prefixing, nominalizations are treated like other nouns. But it is important to remember that in the nominalization of a transitive verb, the “possessive” prefix refers to the object and not the subject, with the exception of the *emi-* construction. In example 62 a), the teacher may be either A or O. If he is A, it is ambiguous whose teacher he is. If he is O, he taught someone else other than the A, so no coreferential prefix is used. In b) the teacher is O, and is specifically the teacher of A. Therefore a coreferential prefix is used. Likewise in 63 a) the student may be A or O, but if he is O he is not the student of A. In b) he is O and is the student of A, as indicated by the coreferential marking.

- (62) a) \*i-mo’é-cár-a o-i-potár ‘his teacher likes him’ OR  
 ‘he likes his [nonCOR] teacher’  
 b) \*o-mo’é-cár-a o-i-potár ‘he likes his [COR] teacher’  
 (63) a) \*c-emi-mo’é o-i-potár ‘his student likes him’ OR  
 ‘he likes his [nonCOR] student’  
 b) \*o-emi-mo’é o-i-potár ‘he likes his [COR] student’

## 5.4 Postpositions

### 5.4.1 Normal inflection of postpositions

When postpositions have a pronominal argument, this is indicated by a prefix from Set 2.

<sup>22</sup> An alternative analysis of this structure is that the *emi-* morpheme somehow decreases the transitivity of the verb, parallel to such morphemes as the reflexive and reciprocal prefixes (Section 3.0), so that the referent of the genitive construction becomes S (Jensen 1990:128).

(64)	<i>Class I</i>	<i>Class II</i>
	* čé cupé ‘to/for me’	* čé r-upí ‘with (led by) me’
	* oré cupé ‘to/for us EX’	* oré r-upí ‘with (led by) us EX’
	* jané cupé ‘to/for us IN’	* jané r-upí ‘with (led by) us IN’
	* né cupé ‘to/for you SG’	* né r-upí ‘with (led by) you SG’
	* pé cupé ‘to/for you PL’	* pé n-upí ‘with (led by) you PL’
	* i-cupé ‘to/for [3]’	* c-upí ‘with (led by) [3]’

#### 5.4.2 Coreferential marking on postpositions

Coreferential prefixes are used with postpositions when the object of the postposition is also the subject of the sentence. In this construction the reflexive *je-* or reciprocal *jo-* is inserted between the coreferential prefix and the stem. In example 65 a) the object of the postposition has a different referent than the subject, although both are third person. Therefore the marking on the postposition is not coreferential. In b) as well, the object of the postposition (1SG) is not coreferential with the subject. In c) the object of the postposition is coreferential with the subject and therefore receives the coreferential prefix together with the reflexive prefix.

- (65) a) \*kyčé o-i-pycýk *i*-cupé ‘he grasped a knife for him [nonCOR]’  
 b) \*kyčé o-i-pycýk čé cupé ‘he grasped a knife for me’  
 c) \*kyčé a-i-pycýk wi-je-upé ‘I grasped a knife for myself [COR]’

If the sentence has a plural interpretation, the reflexive *je-* prefix in 66 a) indicates that each subject is performing the action for himself. In b) the action is reciprocal, as indicated by the prefix *jo-*, but since the subjects are members of the same group as the objects of the postposition, the coreferential prefix still occurs on the postposition together with the reciprocal prefix.

- (66) a) \*o-i-pycýk *o*-je-upé ‘he/they grasped it for himself/themselves’  
 b) \*o-i-pycýk *o*-jo-upé ‘they grasped it for each other’

In sum, the coreferential prefixes occur in the following constructions:

- Subordinate verbs whose cross-referencing (O, S<sub>a</sub> or S<sub>o</sub>) is coreferential with the subject (A or S) of the main clause (Section 5.1).
- Dependent serial intransitive (S<sub>a</sub> or S<sub>o</sub>) verbs since S, which is cross referenced on it, is coreferential with the subject (A or S) of the main verb (Section 5.2).
- Nouns whose possessor is coreferential with the subject (A or S) of the main verb of the clause to which it pertains (Section 5.3).

- Nominalizations, like other nouns, when the possessor (O, S<sub>a</sub> or S<sub>o</sub>) of the verb stem when the verb is nominalized by a suffix; A when the transitive verb is nominalized by *emi-* is coreferential with the subject (A or S) of the main verb of the clause to which it pertains (Section 5.3).
- Postpositions whose argument is coreferential with the subject (A or S) of the main verb of the clause to which it pertains. In this context the coreferential prefix occurs together with the reflexive or reciprocal prefix (Section 5.4)

### 6. Maximal version of coreferential system

Several languages of the Tupí-Guaraní language family use coreferential markers in a way approximating the reconstructed system that I have just described. In some cases there is no direct contradiction of the system, but one of the syntactic structures for which I have reconstructed its operation does not occur, as in Tocantins Asuriní. In other cases the syntactic structures occur but one of the coreferential morphemes on superficial inspection does not appear to be related to the protoform, as in Kayabí and Xingu Asuriní. There is a complete set of coreferential prefixes and these occur in various syntactic constructions: on nouns, postpositions, and verbs when the referent is coreferential with the subject. These languages also retain the traditional cross-referencing on verbs (active/stative system and person hierarchy in independent verbs, with absolute cross-referencing on the various types of dependent verbs).

#### 6.1 Tocantins Asuriní

In Tocantins Asuriní (a member of the Akwawa<sup>23</sup> cluster of subgroup 4) the full set of coreferential prefixes occurs:

we-, oro-, sere-, e-, pese-, o-/w-

These prefixes occur with transitive subordinate verbs, intransitive serial verbs, nouns, and postpositions. In subordinate clauses, when the O of a transitive verb is identical with the subject of the main verb, the coreferential prefix is used, as in example 67.

- (67) [we-nopo -ramo] a-ha-pota (ise)  
 1SG.COR-beat-if 1SG-go-FUT 1SG  
 ‘If (someone) beats me, I will go away.’

However, there is no comparable construction for intransitive verbs. This

<sup>23</sup> According to Auristea Souza e Silva (Parakaná) the coreferential system is comparable to that in Asurini, though no study has been made beyond the level of the sentence. Data collected by Albert Graham show a full set of coreferential markers in Suruí as well.

would require that the subject of the subordinate clause be coreferential with the subject of the independent clause. According to Nicholson (1978:59), when the subject of the independent clause is the same as that of the dependent clause, the verb of the dependent clause takes the form of a serial verb and does NOT have the suffix *-ramo*. It still retains the coreferential prefixing, as in example 68:

- (68) [we-to-ta] a-'o.  
1SG.COR-come-SER 1SG-eat  
'After I came, I ate.'

In other words, the coreferential prefixing exists, but the subordinate structure itself doesn't.

The coreferential system is intact for serial verbs, as in example 69:

- (69) ere-ha e-seegat-a<sup>24</sup>  
2SG-go 2SG.COR-sing-SER  
'You (SG) went singing.'

In this language a set of auxiliary verbs has been derived from dependent intransitive serial verbs. These verbs occur without the serial verb suffix but retain the coreferential prefixing, as in example 70:

- (70) mo'yra a-apo we-ka 'I am making beads.'  
A-ata we-ha ka'a pe 'I went hunting in the jungle.'  
(Lit. 'I hunted, going, in the jungle')

Nouns receive coreferential prefixes when their possessor is coreferential with the subject. Compare the non-coreferential prefix in 71 a) with the coreferential in b).

- (71) a) ere-ha-pota s-agá pype 'You will go to his house.'  
2SG-go-FUT 3-house to  
b) a-ha-pota w-agá<sup>25</sup> pype 'He will go to his own house.'

These prefixes occur for other persons as well, as in example 72.

- (72) we-tyroa a-kotog 'I sew my own clothes.'

Nominalizations, like other nouns, receive coreferential prefixes. In example 73 the coreferential prefix is the S argument of the nominalized verb.

<sup>24</sup> According to Harrison (p.c.) the *t* is a case of devoicing (<\*r>) in the combination with the serial verb suffix.

<sup>25</sup> In this language the third person coreferential prefix has an allomorph *w-* which occurs when the stem begins with *e* or *a*. In this language vowel shift occurred, as seen in such forms as *ha 'go'* (<\*cō>).

- (73) a-ha (ise) we-ke-hawa pype  
1SG-go 1SG 1SG.COR-sleep-NOM to  
'I went to my sleeping place.'

Postpositions also receive coreferential prefixes, as in example 74. In a) this prefix co-occurs with the reciprocal prefix, and in b) with the reciprocal prefix.

- (74) a) a-se'eg we-se-ope 'I sang to myself.'  
b) sa-se'eg sere-so-ope 'We (IN) sang to each other.'

## 6.2 Tapirapé

The full set of coreferential prefixes also occurs in Tapirapé (another member of subgroup 4), as can be seen in the following examples cited by Leite (1987):

we-, ara-, xere-, e-, pexe-, a-/w-

When the O of the subordinate clause is coreferential with the subject of the independent clause, the coreferential prefix is used, as in example 75.

- (75) [we-xokā-ramō] ā-xay'a  
1SG.COR-beat-COND 1SG-cry  
'If (someone) beats me, I'll cry.'

Leite gives no examples of subordinate intransitive coreferential verbs, which would suggest that in this language, as in Tocantins Asuriní, a shift of syntactic structures took place.

Coreferential prefixes occur in serial intransitive verbs, both agentive and non-agentive, as in examples 76 a) and b), respectively.

- (76) a) ā-xaok ekwe we-yytāp-a  
1SG-bathe ? 1SG.COR-swim-SER  
'I'll bathe and afterwards I'll swim.'  
b) xe-kane'o we-ty'ā-ramō  
1SG-tired 1SG.COR-hungry-SER  
'I'm tired and hungry.'

Coreferential prefixes also indicate the genitive on nouns, as in examples 77-78.

- (77) xe-ropy a-'yāra a-ma-xerep  
1SG-father 3COR-canoe 3-CAUS-turn.over  
'My father turned his own canoe upside down.'
- (78) we-'yāpema ā-āpa we-'yn-a  
1SG.COR-club 1SG-make 1SG.COR-sit-SER  
'I am making my club sitting down.'

On postpositions the coreferential prefix co-ccurs with the reflexive prefix, as in example 79. In this example, the main verb '*āpa* 'make', which is transitive, takes the oblique-topicalized form, as indicated by absolute prefix *i-*.

- (79) *a-x(e)-ewe ā'e ramō rō'ō 'yāpema i-'āpa 'yn-a*  
 3-REFL-DAT DEMON because unattested club 3S-make sit-SER  
 'It was for himself, because of that, that he was making a club sitting down.'

### 6.3 Kayabí

The full set of coreferential markers occurs in Kayabí, as described by Dobson (1988), and these are used in all of the syntactic contexts described in Section 4:

*te-, oro-, jare-, e-, peje-, o-/w-*

On superficial inspection, the *te-* morpheme appears to be unrelated to *\*wi-*. However it can be explained on the basis of a regularization of a phonological irregularity which occurs with a few morphemes when preceded by *\*wi-*, as in *\*wi-t-ekó* '1SG to be (in motion)' : *\*wi-t-ekó > t-ekó > te-ekó*.

In subordinate clauses, when O (ex. 80) or S (ex. 81) is coreferential with the subject of the independent clause, the coreferential prefixes are used.

- (80) [o-ywu re] u'yw-a r-eru-a eru-'a-a  
 3COR-shoot AFTER arrow LK-bring-TN<sup>26</sup> CC-fall-TN  
 'After he<sub>2</sub> shot (with arrow) him<sub>1</sub>, he<sub>1</sub> fell, bringing down the arrow with himself.'

- (81) [w-eweg amō] o-jo'o-aù-e'em ore-r-a'yr-a  
 3COR-stomach WH 3-cry-TN-NEG 1EX-LK-child-NC  
 'Our children, don't cry when they<sub>i</sub> are full-stomached.'

As can be seen from example 81, it is permissible in this language for the subject of a subordinate clause to be coreferential with that of the independent clause, unlike Tocantins Asuriní and Tapirapé. The coreferential marking extends as well to the pronominal possessor of the nominal referent of the subordinate verb, as in example 82, where the referent is S.

- (82) [oroj-a'yr<sup>27</sup> 'ar amū] kawípie apo-ù oro-jo-upē  
 1IN.COR-child fall WH cooked.cereal make-TN 1IN.COR-REFL-for  
 'When our, children are born, we, make (a special type of) cooked cereal for each other of us.'

<sup>26</sup> What Dobson glosses as TN corresponds in form but not in function to the serial verb suffix. In these examples its function seems to more closely correspond to the oblique-topicalized verb form.

<sup>27</sup> According to Dobson, "class B" stems, which appear to be the same as the class II stems in this paper, take the following form: *teje-*, *oroje-* *jareje-*, *eje-*, *pejeje-*, and *we-*. The *-e* in final position is omitted before a vowel.

In this example, as well as in 80, the verb in the independent clause takes the oblique-topicalized form, and there is no explicit reference to A, which is the trigger for the coreferential marking.

The coreferential prefixes are also used with intransitive serial verbs, as in example 83:

- (83) so-o *jare-jauk-a* pej-arpì-a<sup>31</sup> r-upi  
 1IN-go 1IN.COR-bathe-TN 2PL.COR-grandmother-NC LK-with  
 'Let's go (to the river) to bathe with your, PL grandmother.'

Coreferential prefixes also occur with nouns. As can be seen in the preceding example, the second person plural referent is coreferential because they are members of the group defined by first person inclusive. The same is true with example 84.

- (84) si-juka ej-eymaw-a  
 1IN-kill 2SG.COR-pet  
 'Let's kill your, SG pet.'

Coreferential prefixes also occur with postpositions, as in example 85, where *o-je-upē*, although occurring in the subordinate clause, is coreferential with the subject of the independent clause.

- (85) [era o-je-upē t-ur-ypy ramō] n-o-jemi'uar-i  
 news 3.COR-REFL-to IMPERS-come-INCIP WH NEG-3-eat-NEG  
 'As soon as the news arrived to her, she, didn't eat anymore.'

### 6.4 Xingu Asuriní

For Xingu Asuriní, which is in the same subgroup as Kayabí, H. da Silva (1995) shows a similar paradigm, including regularization of the first person singular prefix *te-*:

*te-, uru-, jare-, e-, pejepe-, u-*

Like Kayabí the coreferential marking extends to subordinate clauses, including to the coreferential referent of an intransitive subordinate verb:

- (86) ene-peray pe [e-karu-re]  
 2SG-satisfied INTER 2SG.COR-eat(intransitive)-AFTER  
 'Were you, satisfied after you, ate?'

Intransitive serial verbs also receive coreferential marking, as in examples 87-88:

- (87) a-ja'uk te-a te-ka  
 1SG-bathe 1SG.COR-go 1SG.COR-be(in motion)  
 'I am going to bathe.'

<sup>28</sup> Data from other languages (Guajajára, Parintintín, Mbyá, and Wayampi) suggest that the *j* should be part of the stem.

- (88) sa-tym *sare-ka*  
1IN-plant 1IN.COR-be(in motion)  
'We are going to plant.'

Coreferential marking with nouns and postpositions are shown in examples 89 and 90, respectively.

- (89) a-apá *te-yara*  
1SG-make 1SG.COR-canoe  
'I made my canoe.'

- (90) a-pyyk *te-je-e*  
1SG-grasp 1SG.COR-REFL-for  
'I grasped it for myself.'

In sum, although some of the above languages may lack some element of the full system, such as coreferential intransitive subordinate verbs in Tocantins Asuriní and possibly Tapirapé, these languages make maximal use of the coreferential prefixes, as indicated in Table 3.

#### Subordinate (TV) Serial Nominalization Noun (poss.) Postposition

1 and 2 person	x	x	x	x	x
3 person	x	x	x	x	x

Table 3: Maximal use of coreferential prefixing

In this system the coreferential markers are used in reference to all three persons and in all possible grammatical environments. This system has a high degree of redundancy since coreferential markers are not necessary to disambiguate first and second person referents. However, the coreferential markers bring cohesion to the sentence.

In fact, Dobson (1988:83,89) states for Kayabi that the use of these prefixes goes beyond the sentence level and extends to the "period", which she describes as smaller than a paragraph or episode. Nicholson (1975) also shows that the range of these prefixes extends beyond the sentence for specific discourse purposes. These are on forms derived from serial verbs.

## 7. Systems in transition

Several languages of the family show signs of being in transition from the more extended system of coreferential marking to a reduced system. This is evident in two different ways: a reduction in the number of syntactic contexts in which cross referencing takes place, beginning with subordinate verbs; and/or the partial or complete substitution of first and second person prefixes from Set 3 by those from Set 2, or by a combination of those from Set 2 and

Set 1, depending on the syntactic context. In this section I will not necessarily give complete data for each language, but will show the principle evidence of its transitional status.

### 7.1 Kamaiurá

Kamaiurá, from subgroup 7, has the full set of coreferential markers: we-, oro-, jere-, e-, peje-, o-

However, they are not used as fully in this language as they are in the "maximal use" languages. In example 91 we would expect S of the subordinate clause to be coreferential because it is identical with A in the main clause (Seki 1983), but the prefix *je-* from Set 2, not Set 3, is used.

- (91) *[je akajym -amoē] oro-ekat*  
1SG worry-WH 1A+2SG.O-search.for  
'When I got worried I looked for you SG.'

Seki (1989) describes the set of coreferential prefixes as being characteristic of dependent intransitive serial verbs (which she calls gerunds), and gives a complete paradigm for both agentive (example 92) and non-agentive (example 93).

- (92) a-jot *we-maraka-m*  
oro-jot *oro-maraka-m*  
ja-jot *jere-maraka-m*  
ere-jot *e-maraka-m*  
pe-jot *peje-maraka-m*  
o-jot *o-maraka-m*  
'I come, singing'  
'we EX come, singing'  
'we IN come, singing'  
'you SG come, singing'  
'you PL come, singing'  
'[3] come(s), singing'

- (93) a-jot *we-katu-ram*  
oro-jot *oro-katu-ram*  
ja-jot *jere-katu-ram*  
ere-jot *e-katu-ram*  
pe-jot *peje-katu-ram*  
o-jot *o-katu-ram*  
'I come to be good'  
'we EX come to be good'  
'we IN come to be good'  
'you SG come to be good'  
'you PL come to be good'  
'[3] come(s) to be good'

She also gives an example (1990:379) of the third person coreferential prefix on nouns, as in example 94.

- (94) *o-nami-a o-kutuk*  
3COR-ear-NC 3-pierce  
'He pierced his (own) ear.'

However, in example 95, where we would normally expect a first person singular coreferential prefix to occur with the nominalized form of a transitive verb, the Set 2 prefix *je-* is used.

- (95) a-kwahaw-in      *je*    kyci-taw-a  
 1SG-know-IRREAL 1SG cut-NOM-NC  
 'I know that you will cut me.' (Lit. '....my (being) cut')

It would appear that coreferential marking has not been eliminated altogether outside the context of serial verbs, but is limited to third person, which would raise the possibility that it exists as well for third person in temporal subordinate clauses (parallel to sentence 89).

## 7.2 Parintintín

Parintintín has a modified set of cross-referencing prefixes:

*i-*, *oro-*, *nhande-*, *e-*, *pe(ji)-*, *o-*

Two plural forms have been replaced by person markers from Set 2: first person inclusive \**jere-* by *nhande-/(jane/)* and \**peje-* by *pe-*, as demonstrated in Table 4.

Parintintín Set 3	*Set 2	*Set 3
<i>i-</i>	* <i>cé</i>	* <i>wi-</i>
<i>oro-</i>	* <i>oré</i>	* <i>oro-</i>
<i>nhande-</i>	* <i>jané</i>	* <i>jere-</i>
<i>e-</i>	* <i>né</i>	* <i>e-</i>
<i>pe-</i>	* <i>pé</i>	* <i>peje-</i>
<i>o-</i>	* <i>l-</i>	* <i>o-</i>

Table 4: Substitution of forms in Parintintín paradigm

However, in personal communication Pease says that the Parintintín, as well as their close relatives, the Tenharim, often use *peji-* instead of *pe-* on a intransitive verb of 'construction 3', which I refer to as a dependent serial verb. She gives as an example: *peji-kyhyji-avo* 'being afraid'. She also states that in Tenharim *ji-* is used instead of *i-* for first person inclusive; this is the same as the Parintintín reflex of \**cé* from Set 2. Thus Tenharim is one step beyond Parintintín in the replacement process.

The coreferential prefixes are used in Parintintín to indicate the subject of agentive or non-agentive verbs in a serial verb construction, and to indicate the possessor of a noun which is coreferential with the subject of the clause (Betts 1981). She also states that the reflexive prefix *ji-* occurs together with this prefix set in postpositional phrases. According to Pease (p.c.) this prefix set also occurs in temporal subordinate clauses when the referent, S of an intransitive verb or O of a transitive verb, is coreferential with the subject of the main clause, or at least that this pattern was in place with their middle-aged language helper. She observed that their language helper's son did not seem to be so concerned about coreferential agreement in subordinate

clauses, and that the Tenharim seem to be losing coreferential agreement in this context. It was her impression that coreferential marking is less likely in preposed subordinate clauses than in postposed ones.

Based on the modifications to the prefix set, we can say that the degree of change is more or less comparable to Kamaiurá, though different.

## 7.3 Tupinambá

Tupinambá, from subgroup 3, also has a modified set of coreferential prefixes. In the following paradigm, the coreferential forms \**jere-* and \**peje-* have both been replaced by the equivalent forms from Set 1:

*we-*, *oro-*, *ja-*, *e-*, *pe-*, *o-*

Although cross referencing on subordinate verbs in Tupinambá is absolute, providing the appropriate environment for the coreferential markers, Rodrigues, who is very thorough in his description, does not make any reference to their occurrence in this construction.

The fullest set of coreferential markers in Tupinambá occur with agentive intransitive serial verbs ( $S_a$ ), called *gerúndios* by Rodrigues, as in the following paradigm (Rodrigues 1953) of the verb 'to laugh':<sup>29</sup>

- |                        |                      |
|------------------------|----------------------|
| (96) <i>wi-puká-βo</i> | 'and I laughed'      |
| <i>oro-puká-βo</i>     | 'and we EX laughed'  |
| <i>ja-puká-βo</i>      | 'and we IN laughed'  |
| <i>e-puká-βo</i>       | 'and you SG laughed' |
| <i>pe-puká-βo</i>      | 'and you PL laughed' |
| <i>o-puká-βo</i>       | 'and [3] laughed'    |

In nonagentive intransitive serial verbs ( $S_o$ ), only the third person coreferential prefix occurs. The rest of the paradigm shows Set 2 person markers, as in example 97:

- |                           |                       |
|---------------------------|-----------------------|
| (97) <i>sjé katú-ramo</i> | 'I, being good'       |
| <i>oré katú-ramo</i>      | 'we EX, being good'   |
| <i>jané katú-ramo</i>     | 'we IN, being good'   |
| <i>né katú-ramo</i>       | 'you SG, being good'  |
| <i>pé katú-ramo</i>       | 'you PL, being good'  |
| <i>o-katú-ramo</i>        | '[3-COR], being good' |

The use of *wi-* and *e-* is so restricted that Rodrigues does not describe them as part of a set with the third person coreferential prefix *o-* at all. In fact, he describes the set of prefixes occurring in agentive intransitive dependent serial verbs as being Nominative 2, varying in form from Nominative 1 (i.e. Set 1 system), and describes *wi-* and *e-* as allomorphs of *a-* and *ere-*, respectively

<sup>29</sup>I have updated the orthography which Rodrigues used in 1953 to reflect his later conclusions about Tupinambá phonemes.

(1981). This is not surprising, since the Tupinambá was in the process of substituting Set 1 prefixes for those of Set 3 in the one context in which any reflexes of first and second coreferential person markers still occurred, i.e., the serial verbs. Thus, the split-S system which already occurred in independent verbs is extended in this language to the context of dependent serial verbs: the nonagentive verbs taking Set 2 (S/O) person markers for first and second person, and the agentive intransitive verbs taking Set 1 (A/S) markers, as demonstrated in Table 5.

Tupinambá Set 3	*Set 1	*Set 3
<i>wi-</i>	* <i>a-</i>	* <i>wi-</i>
<i>oro-</i>	* <i>oro-</i>	* <i>oro-</i>
<i>ja-</i>	* <i>ja-</i>	* <i>jere-</i>
<i>e-</i>	* <i>ere-</i>	* <i>e-</i>
<i>pe-</i>	* <i>pe-</i>	* <i>peje-</i>
<i>o-</i>	* <i>o-</i>	* <i>o-</i>

Table 5: Tupinambá paradigm for agentive intransitive dependent serial verbs, in transition from Set 3 to Set 1

Note that the prefixes \**oro-* and \**o-* occur in both Set 1 and 3. Therefore all that is necessary for these two prefixes is a reinterpretation of set membership.

Just as it occurs with nonagentive intransitive serial verbs, the third person coreferential prefix *o-* occurs with nouns. For example, from the dictionary of Dias (1965):<sup>30</sup>

- (98)    *o-sý*              *o-werekó o-irø-namo*  
       3COR-mother 3A-have 3COR-companion-as  
       'He had his (COR) mother with him (lit. as his (COR) companion).'

This prefix also occurs with postpositions, as can be seen in the following examples from Barbosa's dictionary (1970) (hyphens added):

- (99) *o-je-pupé* reflexive form of the postposition *pupé* 'in'  
       *o-je-upé* reflexive form of the postposition *supé* 'to, at'  
       *o-jo-upé* reciprocal and reflexive form of *supé* 'to himself, to each other'

In sum, Tupinambá shows a greater reduction of the coreferential marking stem than either Kamaiurá or Parintintín: not only is the number of forms which are reflexes of the Proto-Set 3 reduced, the environment in which they occur is also reduced. Reflexes of \**wi-* and \**e-* occur only with agentive of intransitive dependent serial verbs, and not with nonagentive verbs. Reflexes \**jere-* and \**peje-* do not occur at all.

<sup>30</sup>I have rewritten Dias' examples to make them consistent with Rodrigues' current spelling, for purposes of clarification.

## 7.4 Guarayu

An even greater reduction of the coreferential set can be seen in agentive intransitive serial verbs in Guarayu, a member of subgroup 2 (Newton 1978, and in personal communication). Whereas Tupinambá replaced the first and second plural coreferential prefixes with Set 1 prefixes but retained their singular counterparts, Guarayu took this substitution process one step further, replacing \**e-* with *ere-*. This leaves only one prefix which gives any clue that the cross referencing system in this syntactic context was ever anything other than Set 1: *vi-* (<\**wi-* 1SG), as can be seen by the paradigm in example 100. Since its occurrence is restricted to serial verbs, *vi-* cannot very easily be defined in this language as a coreferential prefix. (Note that in this language the serial verb suffix has also been deleted.)

- (100)    *a-jevy vi-t-u*<sup>31</sup> 'I came back (returned, coming)'  
       *oro-jevy oro-ju* 'we EX came back (returned, coming)'  
       *ja-jevy ja-ju* 'we IN came back (returned, coming)'  
       *ere-jevy ere-ju* 'you SG came back (returned, coming)'  
       *pe-jevy pe-ju* 'you PL came back (returned, coming)'  
       *o-jevy o-u* '[3] came back (returned, coming)'

In Guarayu the temporal subordinate clause marker \*-(*r*)*VmV* 'when' has been replaced by a suffix -*se*.<sup>32</sup> Cross referencing on verbs combining with -*se* is like that on independent verbs, to a large degree eliminating the environment in which the coreferential markers might occur. In example 101 the subordinate verb is marked by *o-*, which must be from Set 1, since its referent is the jaguar, and therefore not coreferential with the subject of the independent verb, fox.

- (101)    [jawar *o-jevy-se w-etā-ve*<sup>33</sup> *o-so*] *a'ese aipo aware o-jé'ẽ*  
       jaguar 3-return-WH 3COR-home-at 3-go then HRSY fox 3-speak

uruvu upe  
       vulture to

'When the jaguar returned (going) to his (own) house, then the fox spoke to the vulture.'

Guarayu retains use of only the third person coreferential prefix with nouns (ex. 102). With other persons, the Set 2 person markers are used, as in

<sup>31</sup>This stem is irregular (throughout the language family). With Set 1 markers the *ju* (<\**jür*) allomorph occurs with first and second person, and the *u* (<\**úr*) allomorph occurs with third person. The *t-* is an irregularity which appears under certain circumstances, including following the first person Set 3 marker \**wi-*.

<sup>32</sup>Perhaps from the Spanish *se* 'if'?

<sup>33</sup>In several languages, *w-* occurs as an allomorph of the \**o-* morpheme before certain vowels.

example 103.

- (102) o-mbopa aipo o-mianga avei  
3-deceive (hearsay) 3COR-uncle also  
'He also deceived his (own) uncle again.'
- (103) a'e če py'a pype  
I.say 1SG heart in  
'I say in my heart.'

As in other languages, the coreferential form of postpositions requires the use of the reflexive prefix *je-* (ex. 104).

- (104) ja-s-eka rānā yvyra jande-je-upē  
1IN-3-search first wood 1SG-REFL-for  
'First we search for wood for ourselves.'

The third person coreferential prefix is used with third person: *o-je-upē* (Newton, p.c.).

## 7.5 Guajajára and Tembé

In Guajajára and Tembé, members of the Tenetehára cluster of subgroup 4, the only regularly occurring coreferential prefix is the third person prefix, *u-/o-*, which occurs in nearly all of the traditional syntactic environments. First and second person coreferential prefixes are replaced by person markers from Set 2. The degree of reduction in these languages is a major difference from the other languages in the same subgroup, which retain a full set of coreferential markers (Sections 6.1 and 6.2).

Temporal subordinate clauses retain the absolute cross-referencing system. A coreferential distinction is indicated with intransitive verbs when the subject is third person (as in examples 105 and 106, agentive and nonagentive, respectively).

- (105)a) [i-ho mehe] u-zai'o a'e      'When he [nonCOR] went he cried.'  
3-go WH 3-cry 3A
- b) [o-ho mehe] u-zai'o a'e      'When he [COR] went he cried.'  
3COR-go WH 3-cry 3S
- (106)a)[h-urywete mehe] u-zegar a'e 'When he was happy he [nonCOR] sang.'  
3-happy WH 3-sing 3S
- b) [(u-)urywete mehe] u-zegar a'e 'When he was happy he [COR] sang.'  
3COR-happy WH 3-sing 3S

It is also correct to use coreferential prefixing on a transitive subordinate verb when the O is coreferential with the subject of the main clause, as in

example 107. However, there is a resistance toward using this construction (Harrison and N. da Silva, personal communication). It is preferable to detransitivize the verb by using the reflexive prefix and to put the information in a sequence of independent clauses instead of using subordination (ex. 108).

- (107)a) [i-petek mehe] u-zai'o      'when X hit him/her [nonCOR] he/she cried'  
3-hit WH 3-cry
- b) [u-petek mehe] u-zai'o      'when X hit him/her [COR] he/she cried'  
3COR-hit WH 3-cry
- (108) U-ze-kixi. A'e rupi u-zai'o.  
3-REFL-cut Therefore 3-cry  
'He cut himself. Therefore he cried.'

Likewise in dependent serial verbs Set 2 prefixes are used for first or second person, and the coreferential prefix is used for third. This is true for both agentive and nonagentive intransitive verbs. Agentive serial verbs (ex. 109) take the suffix *-pà*. Nonagentive ones (ex. 110-111) may take either *-pà* or *-romo*.

- (109) uru-zuka ne-mugwaw-pà      'I'll kill you, making you fall.'  
1EX-kill 2SG-make.fall-SER
- (110) a-zypyrog he-r-urywete-pà      'I began to be happy.'  
OR a-zypyrog he-r-urywete-romo  
1SG-begin 1SG-LK-happy-SER
- (111) u-zypyrog (u-)urywete-pà      'He began to be happy.'  
OR u-zypyrog (u-)urywete-romo  
3-begin 3COR-happy-SER

Certain verbs have developed into auxiliary verbs, which occur without *pà*. One of these is *ho* 'to go' which occurs with Set 1 prefixes instead of Set 2. Whereas example 112 is grammatically correct, 113 is more natural.

- (112) ere-ho ne-ker-pà      'You SG are going to sleep.'  
(113) a-ker a-ho      'I am going to sleep.'

Coreferentiality with a third person subject is indicated on postposition by a combination of the reflexive prefix *ze-* with the Set 3 coreferential prefix *u-*. When the stem of the postposition is reduplicated and a plural subject is indicated by the *wà* morpheme, the first interpretation is reciprocal, as in example 114.

- (114) u-pyhyk i-zupe a'e      'he grasped it for him [nonCOR]'  
u-pyhyk u-ze-upē a'e      'he grasped it for himself'  
u-pyhyk u-ze-upē-upē a'e wà      'they grasped it/them for each other'

For first and second persons coreferential referencing is indicated by a person marker from Set 2 plus the reflexive prefix, as in example 115.

- (115) a-pyhyk *he-ze-upē*<sup>34</sup> ihe ‘I grasped it for myself’

Nouns also receive coreferential marking only with third person, as in 116.

- (116) u-pyhyk *i-ma’ e a’ e* ‘he grasped/grabbed his [nonCOR] thing’  
 u-pyhyk *u-ma’ e a’ e* ‘he grasped/grabbed his (own) thing’  
 a-pyhyk *he-ma’ e ihe* ‘I grasped./grabbed my (own) thing’

In sum, languages in transition range from having a full set of coreferential prefixes (Kamaiurá) to having only a third person prefix (Guajajára). In combination with nouns and postpositions, the first and second person prefixes are replaced by person markers from Set 2, which in postpositional phrases co-occur with the reflexive (or reciprocal) prefix, as illustrated in Table 6:

	Set 2	Set 3
1SG	*čé > *wi-	
1EX	*oré > *oro-	
1IN	*jané > *jere-	
2SG	*né > *e-	
2PL	*pé > *peje-	
3		*o-

Table 6: Paradigm replacement on nouns and postpositions

On verbs the first and second person prefixes are replaced either by Set 1 prefixes or by Set 2 prefixes, as illustrated in Table 7:

	Set 1	Set 3	Set 3	Set 2
	A/S	COR O/S	COR O/S	O/S
1SG	*a- > *wi-	*wi- <	*čé	
1EX	*oro- = (*oro-)	*oro- <	*oré	
1IN	*ja- > *jere-	*jere- <	*jané	
2SG	*ere- > *e-	*e- <	*né	
2PL	*pe- > *peje-	*peje- <	*pé	
3	*o- = (*o-)	*o-		

Table 7: Paradigm replacement on subordinate and dependent serial verbs

<sup>34</sup> The non-coreferential equivalent of this sentence does not use the postposition *upe*, but rather the dative form *-we*, as in the following example: *u-pyhyk he-we a’ e* ‘he grasped it for me.’

When the prefixes on verbs are replaced by Set 2 markers, the \**oro-* prefix naturally changes to \**ore*, but the \**o-* prefix is retained as a coreferential prefix. When the prefixes are replaced by Set 1 prefixes, the \**oro-* and \**o-* prefixes are reinterpreted as part of the Set 1 paradigm, resulting in a complete elimination of coreferential marking in this syntactic context. This is indicated by an = sign in the table. The first place where coreferential marking is likely to be eliminated is in the cross referencing on subordinate verbs.

Comparative paradigms of intransitive serial verbs suggest that paradigm replacement is a gradual process. The data in Table 9 are arranged by degree of paradigm replacement.

	Set 3	Kamaiurá	Parintintín	Tupinambá	Guarayú	Guajajára
1SG	*wi-	we-	i-	wi-	vi-	he-
1EX	*oro-	oro-	oro-	oro-	oro-	ore-
1IN	*jere-	jere-	jane-	ja-	ja-	zane-
2SG	*e-	e-	e-	e-	ere-	ne-
2PL	*peje-	peje-	pe-	pe-	pe-	pe-
3	*o-	o-	o-	o-	o-	o-
<i>Direction of change:</i>		O/S	A/S	A/S	A/S	O/S

Table 8: Paradigm replacement in transition - serial verbs

As can be seen from the table, Kamaiurá (Seki 1989), from subgroup 7, has the full set of coreferential prefixes, whereas Guajajára (Harrison 1986 and p.c.), from subgroup 4, retains only the third-person form. Parintintín, member of subgroup 6, has undergone a partial substitution by person markers from Set 2 (Betts 1981). Like Parintintín, Guajajára has undergone replacement of coreferential forms by those of Set 2, retaining the absolute cross-referencing system along with the third person coreferential prefix *o-*. In Tupinambá (Rodrigues 1953), from subgroup 3, and Guarayu (Newton 1978), from subgroup 2, the coreferential prefixing on dependent intransitive serial verbs has been partially replaced by forms from the nominative set (Set 1), with Guarayu being further along in the substitution process than Tupinambá. The *o-* and *oro-* prefixes are not distinguishable from those of the replacement set and can no longer be considered coreferential markers.

## 8. Minimal system

Another set of languages, including Wayampi and the Guarani subgroup, makes minimal use of the coreferential markers. Only the third person form is used, which is the only one which is really necessary to disambiguate referents. Furthermore, the degree of ergativity has been significantly reduced in these languages, reducing the environment in which the coreferential marker could occur.

## 8.1 Wayampi

In Wayampi<sup>35</sup> subordinate verbs, the same system of verbal agreement is used as with independent verbs. That is, a person hierarchy is used with transitive verbs (ex. 117-118), subject prefixes from Set 1 are used for agentive intransitive verbs (ex. 119), and person markers from Set 2 are used for non-agentive transitive verbs. The use of coreferential markers does not extend to subordinate clauses, even in the case of the nonagentive verbs, as can be seen by the form *i-katu-pa* instead of *o-katu-pa* in example 120.

- (117) [o-erekwa o-juka rem ē] o-o  
3COR-wife 3-kill WH 3-go  
'When he killed his wife, he went.'
- (118) [e-r-eity eipa remē ipe] ywa o-'a-ta  
1SG-LK-drop 2A COND FUTIL sky 3-fall-FUT  
'If you drop me, the sky will fall.'
- (119) [amā o-ky remē te] o-je'ē  
rain 3-rain WH EMPH 3-call  
'It (curassow bird) calls only when it's raining.'
- (120) [i-katu-pa remē] o-jywy o-o  
3-good-COMPL WH 3-return 3-go  
'When he got well, he returned going.'

Agentive intransitive serial verbs occur with subject prefixes from Set 1. Since the third person prefix for Set 1 is identical with that of the coreferential prefix in Set 3, the prefix in this context is no longer identifiable as coreferential, as in example 121. On the rare occasions that nonagentive intransitive verbs occur as dependent serial verbs, the coreferential prefix *o-* does occur, as in example 122.

- (121) a-jywy a-a 'I returned, going'  
o-jywy o-o 'he returned, going'
- (122) n-a-a-i, e'i o-wari ramō  
NEG-1SG-go-NEG 3.say 3COR-lie SER  
'I didn't go, he said lying.'

Only the third person coreferential marker is used with nouns to refer to a coreferential possessor, as in example 123. This includes nominalizations, as in example 124.

- (123) a-a e-y resa 'I went to see my mother'  
a-a i-(j)y resa 'I went to see his mother [nonCOR]'  
o-o o-y resa 'he went to see his own mother [COR]'
- (124) o-o o-mo'e-are r-resa  
3-go 3COR-teach-NOM.FORMER LK-see  
'He went to see his (own) former teacher.'

The coreferential prefix also occurs with postpositions, as in ex. 125.

- (125) marija a pyy e-upē 'I bought a knife for myself'  
marija a-pyy i-(j)upe 'I bought a knife for him'  
marija o-pyy o-upē 'he bought a knife for himself'

Unlike the other Tupí-Guaraní languages, in Wayampi the *o-* attaches directly to the postposition without the use of the reflexive prefix *je-* to give a coreferential meaning. If the *je-* is used with the postposition, it has a reciprocal meaning, as in example 126.

- (126) marija o-pyy o-je-upē kupa  
knife 3-buy 3COR-REFL-for PL  
'They bought knives for each other.'

It appears that the use of this form with *o-*, which originally just indicated third person, has been extended to occur with first and second person as well.

## 8.2 Mbyá Guarani

Like Wayampi Mbyá Guarani retains only the third person coreferential prefix. This is unlike Old Guarani (D. Rodrigues 1997), which retained the *wi-* and *e-* prefixes with intransitive serial verbs, like Tupinambá.

Like Wayampi, subordinate verbs receive the same cross referencing as in independent verbs, as in example 127, and therefore are not targets for coreferential prefixing.

- (127) [a-porandu ramo] o-mbovai  
1SG-ask WH 3-answer  
'When I asked, he answered.'

Dooley (1992:98) reports a switch-reference marking mechanism in temporal subordinate clauses: *vy* (derived from the serial verb suffix *\*-áβo*) for same subject (SS) reference, and *ramō* (from the simultaneous/conditional morpheme *\*-(r)VmV*) or *rā* for different (DS) reference, as in example 128.

- (128) a) [ava o-o vy] moi o-exa  
man 3-go SS snake 3-see  
'When the man went, he saw the snake.'

<sup>35</sup> Data in this paper is from the Jari dialect of Wayampi.

- b) [ava o-o ramō] moi o-exa  
 man 3-go DS snake 3-see  
 'When the man went, the snake saw him.'

Independent intransitive serial verbs no longer use the coreferential set of prefixes. As in Wayampi, these have been replaced by those of Set 1, as in example 129, thus eliminating the environment for coreferential marking.

- (129) a-jevy a-ju-vy  
 1SG-return 1SG-come-SER  
 'I returned, coming'

According to Dooley (p.c.) this type of construction does not occur with nonagentive intransitive verbs.

The third person coreferential prefix is retained in combination with nouns, as in example 130.<sup>36</sup>

- (130) o-jevy o-yvy py  
 3-return 3COR-land to  
 'He returned to his own land.'

The third person coreferential prefix also occurs on a postpositions (in combination with the reflexive prefix *je-*), as in example 131.

- (131) o-je-upé aipo e'i  
 3COR-REFL-to DEMON 3.say  
 'He said like that to himself.'

Dooley also reports *o-jo-upé* 'to each other'. Whenever the argument of the postposition refers to the subject the reflexive prefix is used, but for first and second persons it combines with person markers of Set 2, as in example 132.

- (132) a-poraei xe-je-upé  
 1SG-sing 1SG-REFL-to  
 'I sang to myself.'

In sum, these languages make minimal use of coreferential cross referencing, as shown in Table 9. Coreferential prefixes for first and second persons have been eliminated, thus eliminating the redundancy of the system where it is not necessary for disambiguation. Furthermore, the occurrence of the third person coreferential marker has been severely reduced on verbs, due to the reduction of the environment (absolutive) in which they could occur.

<sup>36</sup> Presumably there is some restriction of coreferential marking on nominalizations, since in Mbyá and other Guaranian languages the nominalizations of circumstance take the same prefixing as independent verbs (Jensen 1990:144,145).

Subordinate V	Serial (IV) S <sub>a</sub> or S <sub>b</sub>	Nominalization	Noun	Postposition (poss.)
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<i>1 and 2 person</i>			x	x
<i>3 person</i>		(x)		

Table 9: Minimal use of coreferential prefixing

The motivation for this elimination of coreferential marking on verbs is the elimination of the morphosyntactic environment in which the prefixing originally occurred. As mentioned above, the coreferential prefixing occurred in the context of absolutive cross referencing. In the original system, the potential environment for coreferential prefixing includes subordinate verb and intransitive serial verbs, as indicated by italics in Table 10. Transitive serial verbs, which cross reference O, do not receive coreferential prefixing because it is A that is identical with the subject of the main verb.

	Independent	Subordinate	Dependent serial
<i>Intransitive</i>	Split-S	<i>Absolutive (S)</i>	<i>Absolutive (S)</i>
<i>Transitive</i>	Split ergative	<i>Absolutive (O)</i>	<i>Absolutive (O)</i>

Table 10: Cross-referencing in Proto-Tupí-Guarani

In Wayampi subordinate verbs, the same system of verbal agreement is used as with independent verbs. That is, a person hierarchy is used with transitive verbs, subject prefixes from Set 1 are used for agentive intransitive verbs, and person markers from Set 2 are used for nonagentive transitive verbs. This system has also been extended to intransitive serial verbs. These cross-referencing changes have resulted in the elimination of the environments in which the coreferential marking originally occurred, as in Table 11.

	Independent	Subordinate	Dependent serial
<i>Intransitive</i>	Split-S	<i>Split-S</i>	<i>Split-S (S<sub>a</sub> / S<sub>b</sub>)</i>
<i>Transitive</i>	Split ergative	<i>Split ergative</i>	<i>Absolutive (O)</i>

Table 11: Cross-referencing in Wayampi

## 9. Eliminated system

In Urubu-Kaapor even the third person coreferential prefix has been eliminated. This is just one aspect of a major simplification of the overall person-marker system that has taken place in this language. Only Set 1

prefixes occur with transitive and agentive intransitive verbs, creating a strictly nominative-accusative system (Jensen 1990). Even nominalizations receive the Set 1 rather than Set 2 person markers. The underlined verb in example 133 is a subordinate intransitive verb, and the one in 134 is an intransitive serial verb. In both cases the  $S_a$  is coreferential with the subject of the main verb, but no coreferential marking is used because the environment in which it occurred (i.e. replacing Set 2 person markers) has been eliminated.

- (133) ajame'ē ke [marajā ngi ihē a-hyk rahā]  
after.that EMPH Maranhão from I 1SG-arrive WH

mataru rehe ihē a-sak tī

Mataru on/at I 1SG-see again

'After that, when I arrived back from Maranhão, I saw Mataru again.'

- (134) ihē riki wewe katu a-jur a-xo  
I EMPH slowly good 1 SG-come 1SG-move  
'I was coming very slowly.'

Only Set 2 person markers occur with nonagentive intransitive verbs, nouns, and postpositions. Sets 3 and 4 have been eliminated altogether. Consequently there is no longer a way, even on nouns, to disambiguate whether a referent is coreferential. In examples 135 and 136 the same form is used for 'his wife', *h-akehar*, even though the referent of 'his' is coreferential with the subject in 125 and non-coreferential in 135, since in the latter it is a prefix on the subject itself. The prefix *h-* (<\*c), from Set 2, occurs with both.

- (135) pe kuja ptyun mokōi ptyun pe h-akehar rehe o-ho tī  
and like.this night two night then 3-wife LK-for 3-go also  
'And after this many nights, two nights, he went for his wife also.'

- (136) ere-rur aja je h-akehar pandu i-pe  
2SG bring thus HRSY 3-wife 3+say 3-to  
"Did you bring it?" thus, it is said, his wife said to him.'

The only area in which coreferentiality is still clearly indicated morphologically is in the postpositions. However, it is the reflexive/reciprocal prefix *ju-* that indicates its coreferentiality with the subject. The third person coreferential prefix \**o-* has been replaced by the normal prefix *i-*, although this does not always occur. Example 137 is a normal form, and the examples in 138 are coreferential.

(137)	<i>i-pe</i>	'to him'	non-coreferential
(138)	<i>ju-pe</i>	'to himself'	

The elimination of the coreferential prefixes in Urubu-Kapor is exemplified by an empty table:

Subordinate V	Serial (IV) $S_a$ or $S_o$	Nominalization	Noun	Postposition (poss.)
<i>I and 2 person</i>				
<i>3 person</i>				

Table 12: Coreferential prefixing nonexistent

## 10. Conclusions

To summarize the coreferential cross referencing in Tupí-Guaraní languages, those which make maximal use of the system have a high degree of grammaticalized cohesion, but are also redundant, since coreferential markers for first and second person are not necessary for purposes of disambiguation. When first and second persons are eliminated on nouns and postpositions, they are substituted with person markers from Set 2. When they are eliminated on verbs, there is a choice between the person markers from Set 1 (A/S) and the ones from Set 2 (S/O), and this choice is partly related to a decrease in the extent of the ergative-absolutive cross-referencing system. If the Set 3 prefixes are replaced by the forms from Set 2, the coreferential prefix for third person is usually retained. If they are replaced by the Set 1 forms, the third person prefix *o-* is reinterpreted as the homonymous prefix from that set for lack of contrast. The underlying nominative-accusative system, as evidenced on the syntactic level by the trigger of the coreferential marking system, is no doubt a principal motivator in the systematic replacement of absolute person markers by nominative prefixes in the languages of subgroups 1 and 8 (see Jensen 1990). Where this has happened the number of structures in which coreferential marking can occur is reduced, making them "minimal use" languages. Languages which fall in the transitional category allow us to get a glimpse of these changes taking place. They serve as a reminder that changes from one system to another are not made overnight, but rather are a gradual process. And the data from Urubu-Kapor is a reminder that ultimately a system, such as Set 3, can be eliminated altogether.

The behavior of various languages in regard to coreferential marking is summarized, by subgroup, in Table 13.

1	Minimal use	Mybá Guarani.
2	Transitional	Guarayu.
3	Transitional	Tupinambá (extinct).
4	Maximal use	Tocantins Asurini. Tapirapé.
	Transitional	Tenetehára cluster (Guajajára, Tembé).
5	Maximal use	Xingu Asurini. Kayabi. <b>Araweté??</b>
6	Transitional	Parintintín. Tenharim.
7	Transitional	Kamaiurá
8	Eliminated	Urubu-Kaapor.
	Minimal use	Wayampi.

Table 13: Cross referencing by subgroup

In the proposed subgroup 4, languages from the Akwawa cluster, as well as Tapirapé, show a complete set of coreferential markers which is used in broad syntactic circumstances. In contrast, all five first and second person markers have been eliminated in Guajajára and Tembé. I suggest that this difference is sufficient reason to reconsider whether the Tenetehára cluster should be a separate subgroup. There are two phonological features which also show its distance from the other languages of the subgroup. The Tenetehára cluster does not show the same kind of vowel shift that is characteristic of Tapirapé and the Akwawa cluster. The principal vocalic change in Guajajára is the creation of an additional vowel by the failure of the reflexes of \*a and \*ã to merge when nasalization was eliminated. Another difference is that Guajajára and Tembé retain the reflex of \*j as a distinct phoneme, which did not merge with the reflexes of \*pj, the palatalized allophone of \*t, and other sources, as in Tapirapé and the Akwára cluster.

I also suggest that information about the coreferential system be included in the criteria for proving or disproving the subgrouping of Arawete, which Rodrigues has very tentatively placed in subgroup 5, together with Kayabi and Xingu Asurini. Since the other languages of this subgroup show maximal use of the coreferential system and the regularization of *te-* as a first person marker, we would expect to find something similar in Arawete if it is a member of the same subgroup.

## 11. Further questions

### 11.1 The origins of coreferential prefixes

Rodrigues (1985) has prepared a list of 121 cognates between Tupí and the

Carib language family. These include five personal affixes, among them the two reconstructed for Tupí-Guaraní as first and second person singular coreferential prefixes: \*wi- and \*e-, respectively. Thus, although they apparently did not always have the meaning of coreferentiality, they nevertheless have existed as morphemes for a very long time. The reflexive prefix, which is reconstructed in Proto-Tupí-Guaraní as \*je- is also in the list of cognates.

Two other prefixes, \*oro- '1EX' and \*o- '3', are identical with prefixes from Set 1.

The two remaining prefixes, \*jere- '1IN' and \*peje- '2PL', are the most difficult to explain. They do not seem to have a history as long as \*wi- and \*e-, nor do they occur in as many languages. In Tupinambá, which retains *wi-* and *e-*, *ja-* occurs instead of \*jere- and *pe-* occurs instead of \*peje-. Both of the prefixes in this language coincide with the prefixes in Set 1. Parintintín retains *i-* (< \*wi-) and *e-*. The Set 2 person markers *nhande-* (/jane/) occurs in place of \*jere-, although Pease says (p.c.) that she has observed some use of *jare-* in Tenharim, and *pe-* occurs in place of \*peje-, although *peji-* has not been completely eliminated. Although \*jere- and \*peje- are longer than their counterparts in Set 1, they are the same length (bi-syllabic) as the comparable independent pronouns \*jané and \*pe...é. Reflexes of these two prefixes occur in Tocantins Asurini and Tapirapé, both from subgroup 4; Kayabi and Xingu Assurini, both from subgroup 5; and Kamaiurá, from subgroup 7. Phonological changes in these three subgroups do not mark them as being more closely related to each other than to other subgroups, so it would be hard to explain these two morphemes as later developments among a group of more closely-related languages. Moreover, I do not see any way of explaining these forms as independent developments in the various languages. It might be possible to argue for the derivation of \*pejé from \*pe- '2PL' + \*je- 'reflexive', but since this still leaves the \*jere- form unaccounted for, I do not see any advantage to this analysis.

### 11.2 The range in coreferential rules

Another question is the range of coreferential rules in Proto-Tupí-Guaraní languages. In this paper I have shown that in some languages the subordinate verb receives a coreferential prefix when its referent (S of intransitive verbs or O of transitive verbs) is coreferential with the subject (A or S) of the independent clause. In fact, in Kayabi and in Tocantins Asurini there is evidence (not cited in this paper) that the use of the coreferential prefixing extends even beyond the sentence, assuming a significant discourse level function. According to Dobson (1988:83), "a reflexive (i.e. coreferential) pronoun in Kayabi which indicates coreference with the subject of the main clause can

occur in any place in the period (larger than a sentence), even in the subordinate clause. In other words, in Kayabí, the range of the reflexivity (i.e. cross-referencing) is the period, and not the clause, unlike many other languages." Nicholson (1975) says that in Tocantins Asuriní, initiating (i.e. independent) verbs are used in longer discourses to express the main points of the plot. Backgrounding, including minor events, is expressed through the non-initiating verbs which are related morphologically to dependent serial verbs in other languages, but occur beyond the range of the clause. If the verb is intransitive, the Set 3 coreferential markers are used. This type of verb is also used for the conclusions to sections. Thus in two languages, at least, coreferential marker goes beyond the range of the sentence and is used for discourse purposes.

In other languages, such as Tupinambá and Kamaiurá, the set of coreferential markers seems to be most closely identified with intransitive dependent serial verbs, with no evidence that they occur beyond the clause. Such a difference in the range of the coreferential markers creates questions about the extent of the system in Proto-Tupí-Guaraní. There is enough evidence from various languages of their occurrence with subordinate verbs that it seems safe to reconstruct their usage in the proto-language. However, to reconstruct their function on their discourse level would be more questionable. Nevertheless, their function on this level in two languages from separate subgroups forces us to recognize that there are some major differences in discourse strategy within the language family, between those languages which have extended use of coreferential markers and those that do not. More detailed conclusions would require a separate study and a separate paper.

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In a way field linguists are like explorers. The prospect of studying a language never before studied holds great excitement, even more so if the language is unrelated to any other language. But working with a language which belongs to a family in which extensive fieldwork has already been done has its own potential for excitement. I began doing comparative work in the Tupí-Guaraní family in 1978 and am still surprised and excited by the discovery of new treasures which help to make the linguistic history of this family unfold. One of the treasures I discovered while working on this paper is the *vi-* suffix in Guarayu, placing this language beyond Tupinambá in a progression of change. I am grateful to all the Tupí-Guaraní linguists whose works have made comparative work possible and to their indigenous language helpers. I am particularly thankful to Heliana da Silva, Norval da Silva, Rose Dobson, Bob Dooley, Floriano Guajajára, Carl Harrison, Jim Kakumasu, Dennis

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