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Finitization

A shift of dependency-coding strategy from Proto-Tupi-Guarani to Emérillon*

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This paper offers a detailed account of a change from non-finite to finite dependent clauses in Emérillon, a Tupi-Guarani language spoken in French Guiana, and presents it as the syntactic context within which loss of ergativity occurred. It shows that the previously described change of the indexation system within dependent clauses in some Tupi-Guarani languages (Jensen 1990), from ergative to both split-intransitive and hierarchical, is in fact only one piece of a considerable shift in dependency-coding strategy. I argue that, whereas Proto-Tupi-Guarani dependent constructions were non-finite, they shifted towards finite clauses in Emérillon. I describe the gradual shift labeled finitization, i.e. a gain of finiteness features, involving not only person markers, but also TAM, negation and clause-linking markers. The change in alignment system is therefore presented as a non-autonomous change within a wider diachronic syntactic shift in dependency-coding.

Keywords: diachronic syntax, finiteness, subordination, ergativity, person indexation, alignment, dependency, construction

1. Introduction

The comparative method, which aims at reconstructing proto-forms of a language family or branch, compares corresponding form/meaning sets of possibly related languages, traditionally only lexemes or grammatical morphemes. Since the '70's, functionalists have shown that morphologization cannot be understood outside

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the context of the syntactic constructions in which it arises (Givón 1971). It has been argued that syntax can be reconstructed when it is linked with reconstructible morphology (Harris & Campbell 1995). For example, it has been shown how within the Construction Grammar framework the comparative method is applicable to syntactic constructions (Barðdal to appear), because syntactic constructions are seen as form/meaning correspondences (e.g. Goldberg 1995). In line with this, changes in alignment systems are nowadays re-examined as part of the diachronic evolution of the constructions they are linked with. They constitute a central topic within diachronic syntax (Harris & Campbell 1995), especially the issue of the development and loss of ergative systems (Queixalós & Gildea 2010). For instance, Gildea (1998) argues that the ergative systems of main clauses in Carib languages derive from nominalized dependent clauses reanalyzed as main clauses. An important point for diachronic syntax is that the change of indexation system in these Carib main clauses is not an independent change, but is only one aspect of the replacement of the whole predicative construction.

This paper adopts this diachronic syntax perspective for a study of the loss of ergativity in the dependent clauses of some Tupi-Guarani languages. The domain of this study is thus the syntactic dependent construction as a whole, rather than a morphological sub-domain such as its indexation system. A previous study argued that dependent clauses in some languages of the family changed from an ergative/ absolutive system to the split-intransitive system with hierarchical indexation of transitive clauses found in main clauses (Jensen 1990). The basic process would be an extension of the main-clause system to dependent clauses. Emérillon, a Tupi-Guarani language not included in the above-mentioned study, also underwent the same changes in its dependency-coding system. The Emérillon data lend partial support to the direction of change postulated by Jensen. However, by examining concomitant changes affecting dependency markers, such as Tense-Aspect-Mood (TAM), negation, word order and productivity in Emérillon dependent clauses, this paper will show that the shift of indexation system in dependent clauses is not an autonomous change, but is part of a complex shift in construction type. This paper will lay out in detail the stages of transition from non-finite dependent clauses to finite dependent clauses, a process that I label finitization. Finitization is defined as a gain of finiteness features (such as, for instance, verbal TAM marking) by a construction formerly considered to be non-finite. This process can be partial or complete; in the latter case the resulting construction is finite. Further aspects of finitization not predicted by Jensen's study will also be described, such as the development of serial verbs and the development of subordinators out of postpositions.

§2 describes the independent and dependent clauses of Proto-Tupi-Guarani (PTG) and argues that PTG dependent clauses are non-finite with some ergative/

absolutive alignment. §3 analyzes the evolution of the different types of PTG dependent constructions in Emérillon as a move away from non-finiteness and ergativity. §4 discusses the notion of finitization and synthesizes the different changes affecting these constructions including the shift in the indexation system from ergative to split-intransitive and hierarchical, by analyzing them as parts of a gradual shift away from non-finiteness.

2. Independent and dependent clauses in Proto-Tupi-Guarani

Tupi-Guarani is a branch of the Tupi family, consisting of about forty languages spoken throughout the Amazon basin, in parts of the LaPlata basin and, formerly, along the Brazilian coast. The first grammars of Tupi-Guarani languages were written in the 16th and 17th centuries (Anchieta 1595, Ruiz de Montoya 1640), but most languages of the family have only been described since the 1980s. An internal classification of the family into eight subgroups was undertaken on the basis of lexical and phonological data (Rodrigues 1984–1985) and later revised (Rodrigues & Cabral 2002), with Emérillon in subgroup 8. Even though Tupi-Guarani languages can be geographically very distant from each other, they are very similar in terms of lexicon and morphosyntax (Rodrigues 1984–1985: 35, Jensen 1999: 128), thus facilitating the reconstruction of Proto-Tupi-Guarani (PTG). The reconstructions proposed by Dietrich (1990) and Schleicher (1998) focus on phonology and morphology, while that by Jensen (1998a, 1999) encompasses syntax as well.

A reconstruction of the PTG indexation system was proposed by Jensen (1990) on the basis of the 13 languages of about 40 then described.³ This means Emérillon data were not taken into account in this reconstruction. In this section, I first summarize the reconstruction of the PTG indexation systems of independent (\$2.1) and dependent clauses (\$2.2), based on a well-established Tupi-Guarani distinc-

^{1.} Tupinambá (Rodrigues 2010 [1981]), French Guiana Wayampi (Grenand 1980, 1989), Chiriguano (Dietrich 1986), Brazilian Wayampi (Jensen 1989), Guarani (Gregores & Suárez 1967), Urubu-Kaapor (Kakumasu 1986), Kamaiurá (Seki 2000), Yuki (Villafañe 2004), Guajá (Magalhães 2007), Tapirapé (Praça 2007) and Emérillon (Rose 2011).

^{2.} Classifications made using other methods or other criteria have resulted in slightly divergent classifications (Dietrich 1990, Mello 2002).

^{3.} These represent the eight subgroups: Mbyá Guaraní, Kaiwá and Chiriguano (subgroup 1), Guarayu (subgroup 2), Tupinambá (subgroup 3), Asuriní, Tapirapé and Guajajára (subgroup 4), Kayabi (subgroup 5), Parintintin (subgroup 6), Kamaiurá (subgroup 7) and Wayampi and Urubu (subgroup 8).

tion between 4 Sets of persons (Set I, II, III and IV).⁴ In §2.3, I take a construction approach to PTG dependent clauses and argue for a new analysis of them as non-finite clauses. §2.4 presents a final type of dependent clause that is more finite.

When not specified otherwise, examples in this section are from Tupinambá (Jensen 1990), an extinct Tupi-Guarani language considered to be conservative.

2.1 Person indexation in PTG independent clauses

Tupi-Guarani languages show split-intransitivity and a hierarchical system on transitive verbs. Indexes (clitics or prefixes) on the verb are obligatory and belong to two sets called Set I and Set II. Core arguments are not marked with case.

The split-intransitive system is defined in terms of an active/stative distinction: nominal predicates and stative intransitive predicates behave differently from active intransitive verbs. S_A of agentive intransitive verbs is indexed with Set I (1), like the A of transitive verbs (2), while S_P of stative clauses is indexed with Set II (3), like the P of transitive verbs (4).

- (1) Set I for S_A a-s \acute{o} 1sg.I-go
 "I went."
- (2) Set I for A

 a-i-nupe

 1sg.I-3.II-hit

 "I hit it."
- (3) Set II for S_p $sy\acute{e}=katu$ 1sG.II=good
 "I am good."
- (4) Set II for P

 syé=nupē

 1sG.II=hit

 "He/she/they/you hit me."

^{4.} The reconstructed forms for each set are not given, since their reflexes differ from one language to another. Instead, the reader is invited to concentrate on the glosses of person indexes. They always indicate first the person and number of the referent indexed, and second the number of the Set, so that 1sg.II should be read "first person singular of Set II".

^{5.} Stative predicates are analyzed as nouns by some and verbs by others (e.g. Meira 2006, Queixalós 2001, 2006 for a summary).

On transitive verbs, the PTG indexation system is organized around a hierarchical indexation system. Whether both A and P or just P are marked on transitive verbs depends on the person hierarchy: when P is third person, A is then hierarchically superior or equal to P ($A \ge P$) and is marked on the verb as in (5) and (6), followed by the i- prefix for third person P. When P is hierarchically superior to A (P > A), only P is indexed, as in (7). I will not go into detail for local forms, i.e. when a first and a second person interact (see Jensen 1990: 122).

- (5) A1 → P3

 a-i-nupē
 1sg.I-3.II-hit
 "I hit it."
- (6) A3 → P3

 o-i-kutúk
 3.I-3.II-pierce
 "He/she/it/they pierced him/her/it/them."
- (7) A3 → P1syé=nupē1sG.II=hit"He/she/they/you hit me."

As summarized in Table 1, PTG independent clauses show a split-intransitive indexation system, with a different indexation of the unique argument of active and stative predicates. A hierarchical system of indexation is found on transitive verbs.

Table 1. Indexation system of independent clauses.

	S _P	S _A	A	P
Set I		X	X	
			$(A \ge P)$	
Set II	X			X
				(P >A)

2.2 Dependent clauses in Proto-Tupi-Guarani

A dependent clause is a syntagm containing a verbal form, finite or not, and occupying the grammatical slot of another syntagm (Lehmann 1989). In his detailed account of clause linkage, Lehmann shows how main and dependent clauses combine in a variety of ways, along several continua.

As far as Tupi-Guarani languages are concerned, three major types of dependent clauses are generally posited: conventionally named temporal/conditional

subordinate clauses, gerundives or serial verbs and oblique-topicalized constructions (Jensen 1998a). Oblique-topicalized constructions (see §3.5) are in fact not proper dependent clauses: they are non-canonical main clauses showing the formal properties of dependent clauses, conditioned by the fronting of an oblique. They may be considered a case of 'insubordination' following Evans's terminology (2007: 307), i.e. "the conventionalized main clause use of what, on prima facie grounds, appear to be formally subordinate clauses." Oblique-topicalized constructions are included in this study because they not only present the same formal characteristics as proper dependent clauses, but also undergo the same finitization process.

In Proto-Tupi-Guarani as reconstructed by Jensen (1998a), the three major types of dependent clauses were marked by subordinating suffixes and an indexation system on dependent verbs distinct from that found in independent clauses. This dependent coding system is still present in six of the eight Tupi-Guarani subgroups. §2.2.1 presents the indexation system of these dependent clauses, and §2.2.2 argues for their analysis as non-finite clauses. §2.2.3 focuses on an additional construction, the nominalization marked with $-\beta a'\dot{e}$, which differs from the major types of dependent clause in that its predicate is indexed in a comparable manner to the predicate of an independent clause.

- **2.2.1** The major indexation system of Proto-Tupi-Guarani dependent clauses The indexation system of dependent clauses is absolutive with some coreferential marking. The three principles underlying this particular indexation system are given below (in the examples, dependent clauses are delimited with brackets).
- i. On transitive verbs, P is indexed with a Set II index, as in the gerundive form in (8). On intransitive verbs (whether active or stative), S (S_p or S_A) is also indexed with a Set II index, as in the active (10) and stative (9) conditional subordinate clauses. This applies systematically, whatever the person of the arguments.
 - (8) *o-úr* [*i-kuáp-a*].

 3.I-come 3.II-meet-GER

 "He came in order to meet him."

Asuriní (Jensen 1990: 123)

(9) [i-paw-amo], sa-ha.3.II-finish-sub lincl.I-go"When it finished, we went."

^{6.} Possible developmental scenarios for this construction are beyond my scope. Evans puts forward the possibility that some types of insubordinated constructions derive from a focus construction without overt presentative and with a unified intonation contour.

Kamaiurá (Seki 2000: 190)

(10) [*je=katu-ramuẽ*], *a-ha=n*. 1sg.II-good-sub 1sg.I-go=pot "When/if I am good, I'll go."

This indexation system is said to be *absolutive* rather than *ergative* because P and S are marked on the verbs with the same set of indexes, Set II, while in ergative (or ergative-absolutive) systems, A is typically the marked element, with the ergative case (Dixon 1994: 56–69). It is completely different from that of the independent clauses described in §2.1: the active/stative distinction and the person hierarchy are irrelevant, Set I is not used at all and Set II is not restricted to S_p and P.

- ii. In some Tupi-Guarani languages, a variant without any index on the verb is found when the absolutive NP immediately precedes the verb. In (11), P immediately precedes a transitive gerundive. In (12), S immediately precedes an intransitive subordinate verb. In these examples, there is no person index on the dependent verb.
 - (11) *o-úr* [*kunumí kuáp-a*].

 3.I-come boy meet-**GER**"He came in order to meet the boy."

Kamaiurá (Seki 2000: 192)

- (12) [aman-a kyr-amuee], a-pyta hok-ip. rain-Ref⁷ rain-sub 1sg.I-stay house-Loc "When it rains, I stay home."
- iii. The absolutive argument of (S or P) of a dependent clause is marked with a special set of coreferential indexes (Set III) when coreferential with the subject (S or A) of the main clause. In (13) and (14), the S of the gerundive is coreferential with the S and A of the main clause, respectively. In (15), the P of the subordinate clause is coreferential with the S of the main clause. Coreferentiality marking occurs on intransitive gerundives, and in some languages in subordinate clauses as well. It must be noted that languages differ both in the number of dependent constructions indexing coreferentiality and in the number of persons for which coreferentiality indexes are used (some restrict it to third person only).

^{7.} This frequent morpheme is used with a variable distribution in Tupi-Guarani languages. The wider distribution attested includes all constituents with a referential function, i.e. all noun phrases and referential nominal predicates (Queixalós 2006). It has also been called "nominal", "nuclear" or "argumentative" case.

(13) *a-có* [wi-poracéj-ta] 1sG.I-go 1sG.III-dance-GER "I went to dance."

Asuriní (Jensen 1990: 125)

(14) sa-ropyta yhara [sere-sahok-a ywyri]
1INCL.I-stayed.with boat 1INCL.III-bathe-GER at.edge
"We stayed with the boat, bathing at the edge."

Proto-Tupi-Guarani (Jensen 1998b: 17)

(15) [peje-pycýk-VmV] pe-'ar 2PL.III-catch-sub 2PL.I-fall "When he caught you, you all fell."

As summarized in Table 2, the indexation system in dependent clauses (the nominalization in $-\beta a'\dot{e}$ excepted) is absolutive with some coreferential marking. It differs from the distribution of person indexes in independent clauses, which shows split-intransitivity and a hierarchical indexation on transitive verbs (cf. Table 1). However, in both systems Set II refers to S_p or P. Another common feature is that the Set I and Set III third person index is o-.

Table 2. Absolutive indexation in dependent clauses.

	S _P	S _A	A	P	
Set I					
Set II ~ coreferential Set III	X	X		X	

2.2.2 Dependent clauses as non-finite clauses

Finiteness has been traditionally characterized as a discrete distinction linked to the presence or absence of verbal inflections on a verb form. It is now considered as a scalar property of a clause, constituting a continuum between the nominal phrase and the verbal clause prototypes (Bisang 2001, Givón 2001: 25–26). I now compare PTG dependent clauses to nominal phrases and independent clauses. Four arguments establish that PTG dependent clauses are closer to the non-finite end of the finiteness continuum, next to nominal phrases.

First of all, all dependent clauses are marked by a suffix indicating their dependent status and specifying their semantic relation of dependency to the main clause. This suffix is added to the verb root in verb-final position, just like nominalizers used for lexical nominalizations (16).

Tapirapé (Praça 2007: 68)

(16) *t-yro-paej-tãr-a a-we'eg a-ka-wo 'y-pe* 3.II-wrapping-wash-**AGNR**-REF 3.I-speak 3.III-be-GER water-LOC "The washerwomen are talking at the river."

Second, the indexation system of dependent clauses is characteristic of nominals. Not only do nominals and dependent clauses use the same person paradigms (Sets II and III), but nominals and dependent clauses also use these two sets with exactly the same distribution. The absolutive category of dependent clauses is exactly equivalent to the possessor category of nominal phrases. Indeed, PTG nouns have their possessor indexed with Set II (17) or Set III if it is coreferential with the subject of the clause (19). This parallels the encoding of the absolutive argument on dependent verbs with Set II (18) or Set III (20) according to coreferentiality with the subject. Moreover, in the genitive construction, the possessee does not carry any person index if the possessor NP immediately precedes it (21), just as a dependent verb immediately preceded by its absolutive argument does not carry any person index (22).

Proto-Tupi-Guarani (Jensen 1998a: 503-504)

- (17) Set II for possessor
 i-čý o-c-epják
 3.II-mother 3.I-3.II-see
 "He saw his (someone else's) mother."
- (18) Set II for P on a dependent verb o-úr [i-kuáp-a]
 3.I-come 3.II-meet-GER
 "He came in order to meet him."
- (19) Set III for coreferential possessor
 o-čý o-c-epják
 3.III-mother 3.I-3.II-see
 "He saw his (own) mother."
- (20) Set III for coreferential P/S

 a-có [wi-poracéj-ta]

 1sg.I-go 1sg.III-dance-ger

 "I went to dance."
- (21) no index with NP possessor kujā čý woman mother "woman's mother"

(22) no index with absolutive NP

o-úr [kunumí kuáp-a]

3.I-come boy meet-GER

"He came in order to meet the boy."

Third, temporal information in dependent clauses is provided by nominal morphology rather than TAM predicate markers. Thus, the Guaraní -*kue* suffix is used not only on nouns (23) but also on nominalizations (24) and in other dependent clauses (25).

Guaraní (Tonhauser 2006: 160, 162, 163)

- (23) *Kuehe a-hecha pa'i-kue-pe*. yesterday 1sg.I-see priest-KUE-POSTP "Yesterday I saw the former priest."
- (24) *Umi pa'i ha mbo'e-ha-ra-kue o-ho Paraguay-pe.* these priest and teach-NR-AG-KUE 3.I-go Asunción-POSTP "These (current) priests and former teachers went to Asunción."
- (25) *O-hasa-kué-vo ko'ape o-hecha che-ve.*3.I-pass-kue-ger here 3.I-see 1sg.II-postp "When she passed by here she saw me."

Fourth, negation is also shared by nominal arguments (26) and dependent clauses (27) and differs from the sentential negation used on independent verbs (28).

Tapirapé (Praça 2007: 51-52, 16)

- (26) konomī-e'ym-a rõ'õ a-o'o xãwãr-a. child-NEG-REF it.seems 3.I-bite dog-REF "It seems it wasn't the child that the dog bit."
- (27) ara-āro ekwe ka-pe i-a-e'ym-amõ.

 A1.P2-wait imminent_futur field-Loc 3.II-go-NEG-SUB
 "I will wait for you in the field, if he doesn't go."
- (28) $\tilde{a}'\tilde{e}=g\tilde{a}$ $n=a-k\tilde{a}xym-i$ $k\tilde{a}'\tilde{a}-pe$.

 DEM-SG NEG=3.I-flee-NEG woods-LOC

 "He did not flee in the woods."

For all the above reasons, I consider this major type of dependency-coding to be clearly non-finite, as the PTG dependent clauses display the same syntactic structure and morphology (person, TAM and negation) as nominal phrases and are marked as dependent with a suffix just like lexical nominalizations are. The only characteristic that the dependent clause lacks to be considered a pure nominalization is the capacity to function as an argument. Interestingly, considering all PTG

dependent clauses as nominalizations would explain their use of the so-called 'absolutive' indexation system. This type of indexation system is common for a nominal indexation system, while as a verbal indexation system, it is a typological rarity: an absolutive-ergative system in which the absolutive is the marked element.⁸ Rodrigues & Cabral (2003) and Cabral & Rodrigues (2005) have argued that nominalizations are the diachronic source of the absolutive pattern of dependent clauses in Tupi languages. Moreover, it is common among Amazonian languages for subordinate clauses to be nominalized (Derbyshire & Pullum 1986: 19, Dixon & Aikhenvald 1999: 9).

2.2.3 The *-βa?é dependent clause

There are several types of nominalization in Proto-Tupi-Guarani — of the agent, of the action, of the patient, of the circumstance — each with different semantics and a different suffix (Jensen 1998a). They are reconstructed with the absolutive system: Set II indexes P (29) or S (30).

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(29) *i-juká-cáβ.3.II-kill-CIRCNR"his death place, his death circumstance"
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Proto-Tupi-Guarani (Jensen 1998a: 540)

(30) *čé=kér-a. 1sg.II=sleep-acnnr "my sleep"

Jensen7 states that the 'clause nominalizer' *-βaʔé differs from other nominalizers in that it does not apply to the verbal stem but to the whole clause (1998a: 542–543). No argument is given, however, beside the use of the indexation system found on independent verbs. I, however, consider the dependent clause marked with the suffix *-βaʔé more finite than the dependent clauses described above, in that it shares its indexation system with prototypical main clauses rather than with nominals. Unlike verbs deverbalized with other nominalizers, the *-βaʔé clause

^{8.} Dixon (1994: 58, 67) states that "absolutive is always unmarked with respect to ergative", at least for case inflections. As far as markedness in cross-referencing systems is concerned, he suggests that it may be determined "in terms of which among A, S and O is cross-referenced, in a language with only partial cross-referencing of core NPs." In keeping with this generalization, the absolutive is marked and the ergative unmarked in Proto-Tupi-Guarani dependent clauses.

^{9.} In fact, Jensen also argues that *- β a7é nominalizations use the negation morpheme appropriate to independent verbs (Jensen 1998a: 543). The example, however, is taken from Wayampi, one of the languages that underwent finitization of the dependent clauses. For this reason, I do not consider it a good illustration of the PTG system.

follows the intransitive-split system with hierarchical indexation found on main verbs, with Set I for S_A (31) and A (32) and Set II for S_P and P. Set I is therefore found where Set II is expected in other dependent clauses, i.e. for S_A in (31) and for A when higher than P on the person hierarchy as in (32).

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Guajajára (Jensen 1999: 160)
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(31) o-hó=ma?é.

3.I-go=NR

"the one that goes"

Mbyá (Jensen 1999: 160)

(32) oro- $2\dot{u}=\beta a2\dot{e}$.

1EXCL.I-eat=NR

"(that) which we are eating"

The *- β a?é construction nevertheless shares with other dependent clauses the use of nominal morphology: it takes the temporal suffixes particular to nominals, the referential suffix *-a and the *-e'ym negation marker.

Tapirapé (Praça 2007:71)

(33) *ā-ow parāxi-ø a-kāxym-ama'e-kwer-a.*1sg.I-find pencil-ref 3.I-disappear-nr-past-ref
"I found the pencil that had disappeared."

Guajá (Magalhães 2007: 213)

(34) i- \tilde{i} - \tilde{y} -ma'á.

3.II-say-neg-nr

"the one who does not say / the mute one"

The examples show that the *-βa7é clause is used to express a property restricting the potential referents of a head, i.e. as a relative clause. With the partial exception of this last construction, all PTG dependent clauses are therefore coded as non-finite clauses.

3. Evolution into Emérillon of each Proto-Tupi-Guarani dependent construction

The previous description of PTG dependent clauses is still valid for six of the eight subgroups. However, dependency is now encoded differently in subgroups 1

^{10.} In Guajajára, Kayabi (Jensen 1999), Kamaiurá (Seki 2000), Tapirapé (Praça 2007) and Guajá (Magalhães 2007) *-βazé occurs only with intransitive predicates.

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and 8. Jensen (1990) has previously shown that the indexation system of independent clauses has been extended to dependent clauses in Chiriguano, Kaiwá and Mbyá Guaraní of subgroup 1 and Wayampi and Urubu of subgroup 8. In these languages, the absolutive and coreferential system has been replaced by the hierarchical indexation system in dependent clauses.

Emérillon, a language currently spoken in French Guiana, belongs to subgroup 8 of Tupi-Guarani, one of the subgroups where dependent constructions have undergone changes, and is a close relative of Wayampi. For lack of data, Emérillon was not included in Jensen's study but its dependent clauses have nevertheless undergone the same kind of shift in the indexation system. Emérillon still displays the same sets of person indexes, now prefixes in all cases. ¹¹ On independent verbs, the indexation system is roughly the same in Emérillon as in PTG, with some minor changes and the major fact that there is only one slot for a person prefix. As a result, a third person P is no longer indexed (for details on hierarchical indexation in Emérillon, see Rose 2003, 2007, 2008 and 2009a). On the contrary, most dependent constructions have evolved away from the absolutive pattern presented in §2.2 and nowadays use the same indexation system as independent verbs.

This section has two goals. The Emérillon data provides evidence from an additional language for the direction of change postulated by Jensen and therefore supports her reconstruction of PTG on the basis of the 6 conservative subgroups. The larger aim is to show that the loss of ergativity is only one piece of a more complex change in construction type. The change in indexation is in fact concomitant with some other changes, namely changes regarding TAM and negation marking, dependency-marking suffixes and productivity. I consider these changes to be related to a change of construction. The particular evolution of each dependent construction will now be examined from the most conservative to the most innovative, i.e. gerundives, the *-βa²é construction, temporal subordinate clauses and the oblique-topicalized construction. I show that dependent constructions evolved to different degrees on the finiteness continuum, but always away from the non-finite end of the continuum. The radical shift in dependency-coding that affects every dependent construction will be synthesized in §4 and analyzed as a process of finitization.

In this section, examples without a specified language name are all from Emérillon.

^{11.} Set III is now restricted to third person. Since it is no longer found on verbs, I will not deal with this paradigm reduction.

3.1 Transitive gerundives

Jensen refers to gerundive constructions as 'serial verbs'. Following Rodrigues, I use the term *gerundive* (*gerundio* in Rodrigues 1953) because the verb under study is marked with a suffix, while serial verbs do not normally display any marker of dependency (Aikhenvald & Dixon 2006: 1). 12 The PTG gerundive expresses simultaneous action, purpose or sequential action. Its subject is necessarily coreferential with the subject of the main verb (35) (cf. also (11), (13) and (14)). PTG gerundives are generally marked with a suffix -a or its allomorphs, except for r-final roots, which undergo subtraction 13 of final r (Rodrigues 1953). The latter marking is going to be of particular interest for the coming discussion.

Tupinambá (Jensen 1990: 124)

(35) *o-úr i-kuáp-a*.

3.I-come 3.II-meet-GER
"He came to meet him."

Tupinambá (Rodrigues 1953: 130)

(36) potár "to want" → potá "wanting"

In Emérillon, the absolutive pattern of the gerundive is maintained only with transitive gerundives, in some residual forms of the gerundive. As in the PTG dependent clauses (§2.2.1), the gerundive either takes a Set II marker for P as in (37) or no index if immediately preceded by a nominal P as in (38). The absolutive pattern is nowadays a marked pattern, since it is found only with the rare transitive gerundives.

- (37) sɨrɨdʒ o-ɨkɨdʒ o-wɨ Ø-eraho.

 IDEO 3.I-take 3.III-mother 3.II-carry

 "He took his mother and carried her."
- (38) *e-k^wa beku-r-eta*.

 2SG.IMP-go creeper-RELN-cut
 "Go cut the creeper."

^{12.} As discussed in Rose (2009b), the gerundive may best be described as a converb in a cross-linguistic perspective. Converbs are inflectional non-finite forms of the verb whose main function is to mark adverbial subordination (Haspelmath 1999). Their subject is typically co-referential with the subject or another argument of the main clause. Tupi-Guarani gerundives display the adverbial function and some formal characteristics of converbs, although unlike converbs they are marked for person.

^{13.} Subtraction is defined as the signaling of a morphological relationship by deleting a segment (or more) from the base (Haspelmath 2002).

Emérillon gerundives are not currently marked by a suffix as illustrated in (37) and (38). However, *r*-final verbs show subtraction. Example (39) illustrates how the verb *ekar* ("search") loses its final consonant in the Emérillon gerundive form.

```
(39) a. o-ekar o-iba.
3.I-search 3.III-pet
"He is looking for his pet."
b. o-ho-tar pureru-r-eka.
3.I-go-TAM toad-RELN-search
"He goes looking for the toad."
```

This last point is not mentioned by Jensen, since the languages she studied have all systematically lost word-final consonants. The Emérillon data is therefore of great interest. Even though the gerundive suffixes were lost without leaving any trace, the regularly missing final r is a residue of one of the PTG gerundive's endings. Together with the marked structure of a verb form without an index but with an immediately preceding P, the missing /r/ constitutes a small but strong indication that this construction originates from the PTG gerundive construction as reconstructed by Jensen. Intransitive gerundives underwent deeper changes and are therefore examined separately in the following section.

Transitive gerundive forms are rare and restricted to a few lexical items, i.e. their frequency is low both as a type and as far as individual tokens are concerned. In my corpus, only fifteen of these verbal forms were found. Moreover, transitive gerundives can be said to be quasi-frozen in Emérillon (Rose 2009b). For example, several of the verbs occurring as gerundives never occur as independent verbs, such as wa "eat" and esag "see" corresponding to the independent verbs ?u "eat" and mazē "see, watch". In addition, some grammaticalization processes may be at work. The reduction in productivity of gerundives to transitive verbs only, with low frequency and sometimes quasi-frozen forms, identifies them as residues of the former dependent-coding system.

3.2 From intransitive gerundives to serial verbs

The intransitive gerundives gave rise to a newly constituted serial verb construction (SVC) in a comparable way to what happened in Tibetan (DeLancey 1991). Rose (2009b) argues for this as the origin of Emérillon serial verb constructions, as summarized here.

^{14.} For instance, the gerundive form *i-mõdo* 'making go' tends to be used without its lexical motion meaning but with an aspectual meaning ("the action will keep going").

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The change between PTG intransitive gerundives and Emérillon serial verbs is radical: it consists of a change of indexation system (where the coreferential marking of S with Set III has been lost) and the loss of dependency-marking suffixes. In example (40), both verbs are marked for S with Set I, where in the PTG gerundive construction a Set III coreferential marking would be expected on the second verb (the gerundive). The second verb does not carry any dependency-marking suffix and appears with the same form as an independent verb (41).

- (40) a-nan a-ze-mim. lsg.I-run lsg.I-reft-hide "I run to hide."
- (41) *a-ze-mim*. 1sg.I-refl-hide "I am hiding."

The /r/ is always missing on an r-final root used as the final verb of a series, just as it was missing on a PTG gerundive. This is strong evidence that the source of serialization is the PTG gerundive construction. (42) illustrates how the verb 2ar ("fall") loses its final consonant in a verb series.

```
(42) a. aman o-2ar.
rain 3.I-fall
"It's raining."
b. o-wir o-2a wira-wi.
3.I-detach 3.I-fall wood-from
"He is falling from the tree."
```

A detail like the final r subtraction in Emérillon lends support to the direction of change from gerundive to serial verbs postulated by Jensen for some languages of subgroups 1 and 8. This consolidates the claim that the dependent-coding systems of 1 and 8 derive from the more widespread system that was used to reconstruct the PTG system. Assuming the reconstruction of the PTG indexation system is right, it supports the direction of change that I postulate from an absolutive indexation system to a split-intransitive system with hierarchical indexation.

The structure resulting from the change in indexation pattern and the loss of dependency markers is serialization, a very common structure in Emérillon. It consists of several verbs without coordination or subordination markers (except subtraction), and without any internal pause, as in (40). TAM and negation are shared and marked only on the first verb, as illustrated in (43) and (44). Subject (and object if there is one) is always shared. Core arguments are obligatorily indexed on both verbs (even when the object immediately precedes the final verb), following the indexation system and argument structure of independent verbs. In

conclusion, the intransitive gerundive gained some finiteness through the shift in indexation but acquired a non-finite property, i.e. the inability to take autonomous TAM or negation within the complex predicate.

- (43) *a-nan-tar a-ze-mim.*1SG.I-run-FUT 1SG.I-REFL-hide
 "I am going to run and hide."
- (44) *d-a-nan-i a-ze-mim*.

 NEG-1sg.I-run-NEG 1sg.I-REFL-hide

 "I did not [run and hide]."

I asserted above that only intransitive gerundives evolved into serial verbs (with an intransitive V2), while transitive gerundives evolved differently (cf. §3.1). Among all the cases of Emérillon serialization, some examples like (45) and (46) nevertheless show a final transitive verb. In these, note that the final r of the final verb of the series is not elided. I therefore postulate that this construction is not directly derived from the PTG gerundive, but rather that the serial verb construction was first derived from a complex sentence with an intransitive gerundive and that later this construction was extended to allow final transitive verbs as well.

- (45) *o-ho o-iba o-ekar-on.*3.I-go 3.III-pet 3.I-search-PL.s
 "They went to look for their pet."
- (46) o-eraho o-ero-ker.3.I-carry 3.I-soc.caus-sleep"He is carrying her to sleep with her."

3.3 The *-βa?é dependent clause

The PTG *- β a?é nominalization differed from the other types of dependent clauses in being more finite, due to its use of the same indexation system as that used on independent verbs (cf. §2.2.3). It then moved on the finiteness continuum from somewhat non-finite to finite, so that a clause marked with = $m\tilde{a}$? \tilde{c} , the Emérillon reflex of *- β a?é, ¹⁵ should now be analyzed as a clearly finite clause, for three reasons.

First, as was already the case in PTG, the indexation system is that of a finite clause, as illustrated in the examples below by the use of Set I for S_A (47) and A

^{15.} It is possible that PTG *- β aré had a nasal allomorph *-mare following nasal vowels (Jensen 1998: 543). In some Tupi-Guarani languages, the nasal allomorph was generalized in all phonological contexts. Since Emérillon displays nasal harmony within the morpheme, this would explain the form - $m\tilde{a}r\tilde{e}$.

(48)–(51). Second, TAM and negation are now also encoded in the same way as in an independent clause, with predicate morphology (future -tar in (48), negation d-...-d3i in (51)) rather than nominal morphology (33). Third, the dependency marker is a clause-final clitic, attached to the final word of the dependent clause, be it the verb or not as in (50). In this, it differs from nominalizers, which are verb suffixes.

- (47) wai-kuwa za-mã?ē-iţſē õwã amõ-kom, [o-?i-wi-wi.

 NEG-COND INDET.I-see-just NEG other-PL 3.III-river-ABL-RED

 o-?ur-a=mã?ē]-kom amõ.

 3.I-come-REF=REL-PL other

 "We would not go and see other people, the others that came from their river."
- (48) an bazekwər [a-mebezu-tar-a=mãzē].

 DEM story 1sg.I-tell-fut-ref=rel
 "This is the story I am going to tell."
- (49) *i-puri-we-?e* ba?e [*i-pope pazaru za-inun-a=mã?*ē].

 3.II-next.to-too-intens thing 3.II-in beer indet.I-put-ref=rel
 "And next to it is a thing in which you put beer."
- (50) oro-potar [mun am-ewar-a-kom o-tarawad3.

 lexcl.I-want people here-circnr-ref-pl 3.I-work

 administration-pope=mã2ē].

 administration-in=COMPL

 "We would like local people to work in the administration."
- (51) o-nupã-?e [d-o-nupã-pa-dʒi-n-mã?ē].
 3.I-hit-INTENS NEG-3.I-hit-COMPL-NEG-PROG=REL
 "Then they hit again, those (creepers) that they had not hit yet."

The semantic relation of dependency that $=m\tilde{a}\tilde{z}\tilde{e}$ expresses distinguishes it from Emérillon nominalizers, which have a specific semantic function (cf. §2.2.3): $=m\tilde{a}\tilde{z}\tilde{e}$ is used as a complementizer (50) and as a universal relativizer, relativizing subject (47), object (48) or the object of postposition (49).

3.4 The temporal/conditional subordinate clauses

PTG displays two types of so-called 'temporal subordinate clauses'. One is marked with the suffix $^*(C)$ VmV and expresses temporal or conditional relations ((52), see also (9) and (12)), the other one is marked with the suffix * -ire $^-$ -(ri)re, glossed as "after". They use the absolutive indexation pattern: in (52), P is indexed with Set II, whatever the person of A.

Tupinambá (Jensen 1990: 118)

(52) *i-nupē-reme*.3.II-hit-suB"If (I/we/you/he/they) hit him, ..."

The only subordinate clause that was maintained in Emérillon is the temporal/conditional one marked with =nam. It underwent three types of changes and thus became a typical finite subordinate clause. First, it replaced the absolutive indexation system with the split-intransitive system and hierarchical indexation used in independent clauses. Set I is now used to index S_A in (53) and (54), where in Proto-Tupi-Guarani, Set II forms would index S_A and P, respectively.

- (53) *a-wig-a=nam*, *o-ho-pa*. 1sg.I-arrive-ref-sub 3.I-go-compl "When I arrived, he had gone."
- (54) o-inun-ba=nam, o-pukudz.
 3.I-put-COMPL-SUB 3.I-stir
 "When she finished putting them (in the pot), she stirred (the contents of the pot)."

Second, the clause introduced by =nam can now be marked with predicate morphology for tense and negation. It is in every way (but for the presence of =nam) comparable to an independent clause.

(55) *d-o-su?u-tar-i=nam*, *d-o-su?u-tar-i*.

NEG-3.I-bite-FUT-NEG-SUB NEG-3.I-bite-FUT-NEG

"If they (the fish) don't bite, they don't bite."

Finally, note also that = nam is not a verb suffix, but a clause-final clitic in Emérillon. The verb is not necessarily the last constituent of the dependent clause, as (56) shows. Moreover, = nam can introduce non-verbal predicates such as existential predicates (57). The = nam subordinate clause is therefore a finite clause marked with a clause-final clitic.

- (56) *o-zur-eze i-pa2a=nam*, *o-ikid3 zadupa-pope o-po2ã...* 3.I-come-again 3.II-brother-sub 3.I-take genipa-in 3.III-hand "When her brother is back, she puts her hand in the genipa..."
- (57) kob-a-itse tarawad3-a=nam d-a-pɨhɨg-i maire.

 COP-REF-IRR WORK-REF-SUB NEG-1SG.I-take-NEG mayor

 "If there was some work, I wouldn't take the mayor position."

3.5 The oblique-topicalized constructions: the loss of a construction

The oblique-topicalized construction is found in most Tupi-Guarani languages whenever an adverb, a postpositional phrase or a temporal subordinate clause is fronted. The main verb is then marked like the verb of a dependent clause (cf. §2.2). This verb form is reconstructed for PTG. First, it takes a suffix -i (58) or -n (59). Second, it follows the absolutive pattern of indexation: the verb systematically takes an absolutive Set II index, referring to S on intransitive verbs (58), to P on transitive verbs (59).

Proto-Tupi-Guarani (Jensen 1998a: 526)

(58) *kwecé i-2ár-i.*yesterday 3.II-fall-**OBTOP**"Yesterday he fell."

Guajajára (Jensen 1990: 125)

(59) ka'a-pe ure-reraha-n. jungle-at 1EXCL.II-take-овтор "He took us to the jungle."

In some languages of the family, this particular construction is marked (as absolutive and with a suffix) only when the subject is a 3rd person; in other languages, only when the subject is 1st or 3rd person. Otherwise, a regular independent verb form is used.

In Emérillon, the oblique-topicalized construction has completely disappeared. It probably lost both its dependency-marking suffixes and the absolutive indexation in all the persons. Thus, when a predicate follows a fronted adverbial, as in (60) and (61), it is marked like any independent verb: it takes no special suffix and uses regular independent verb indexation. Since its marking has been 'normalized', there is no reason anymore to speak of an 'oblique-topicalized construction'.

- (60) tepisi-pope o-nami.
 press-POSTP 3.I-squeeze
 "She squeezes it in a press."
- (61) *a-wig-a=nam*, *o-ho-pa*. 1sg.I-arrive-ref-sub 3.I-go-compl "When I arrived, he had gone."

4. A shift in dependency-coding: Finitization

The preceding section showed that PTG dependent constructions evolved into Emérillon in different degrees on the finiteness continuum, but always away from the non-finite end of the continuum. In this section, I first offer a crosslinguistic definition of the term 'finitization' (§4.1). Then, the label finitization will be used to subsume the diachronic processes at play in the evolution of Tupi-Guarani dependent clauses (§4.2). I show that this process is gradual, affecting different types of clause to different degrees (§4.3). The loss of ergativity must be directly linked to the finitization process rather than seen as an autonomous alignment change (§4.4). Finally, I discuss the genesis of finitization (§4.5).

4.1 Finitization

The process I label 'finitization' ¹⁶ involves a structural change in a construction, a formal shift from the non-finite end towards the finite end of the finiteness continuum. The process consists of the extension of finite features to a non-finite construction. Rose (forthcoming) discusses this definition in more detail and contrasts it with the more commonly discussed functional shift of non-finite constructions, which extends to main clauses. The discussion is summarized below.

Finitization as a gain of morphosyntactic finiteness features can be partial. It minimally involves the addition of one or more finite features to a non-finite construction, without necessarily resulting in its re-analysis as a finite construction. A first example of partial finitization is the addition of verbal TAM marking, an element of finite structure, to some nominalized clauses in Ute (Givón 1994). A second example is mentioned in Gildea (forthcoming): in the Pekodian branch of Cariban, most (if not all) of the nominalized subordinate clauses are unusual in the family because they do not present the standard absolutive possessive prefixes. Instead, the entire finite person-marking paradigm has been extended to Pekodian subordinate clauses, partially finitizing them even though they still occur in dependent clauses.

Finitization can also be complete when a non-finite construction is re-analyzed as a finite construction. Givón (1994) mentions that the origin of the recent Ute impersonal passive in -ta is to be found in a verb phrase nominalization. The

^{16.} The term 'finitization' was first used when discussing my data on another language, Mojeño Trinitario, by T. Givón, at the *Seminario de complejidad sintáctica y diversidad tipológica* (University of Sonora at Hermosillo, November 15–16, 2010). Givón (1994) uses the term 'refinitization'. I prefer the simpler term 'finitization' that does not presuppose that non-finite clauses necessarily result from a diachronic process of de-finitization.

non-finite nominalization has been reanalyzed into a finite passive structure. In the passive, the suffix *-ta* is the only remaining residue of non-finite morphology. Genetti (1991) details the development of postposition to subordinator in Newari, a development involving a reanalysis of originally nominal morphology as verbal morphology via the reanalysis of unmarked nominal clauses as finite clauses. The author emphasizes that the reanalysis was facilitated by the fact that some nominalizations lacked overt nominalizing suffixes. Two syntactic analyses of these structures were then possible: nominal clause + case suffix vs. finite verb + subordinator. The ambiguous cases were reanalyzed as finite verbs with verbal morphology, and some non-finite forms were lost in the process.

The definition of finitization in terms of structural encoding leaves aside cases of reanalysis of a non-finite form as a finite form on purely syntactic grounds, i.e. as a main clause predicate. Rose (forthcoming) distinguishes several types of functional shift of non-finite constructions: clause-fusion, upgrading of a non-finite verb form as the main verb without auxiliary, insubordination (Evans 2007) and extension at discourse-level (cf. for instance Mithun 2008). Clause fusion, i.e. the fusing of erstwhile independent elements, is the best known of these mechanisms. It can involve a non-finite verb form that is united to a former copula or auxiliary carrying finite morphology, and the result is reanalyzed as a finite verb form. This is what happened in the development of the French inflectional future, from the fusion of the infinitive form and the regularly inflected finite verb "to have" (Hopper & Traugott 2003:52-55). It also happened in the genesis of the Polish inflected past tense. This finite verbal form results from the fusion of a participial verb stem with a copular clitic that has been reanalyzed as verbal morphology (Hopper & Traugott 2003: 145-148). An example of upgrading of a non-finite verb form as the main verb without auxiliary is found in Russian, where a former participle is used as the preterit form of the verb, after copula deletion occurred. Nowadays the form is considered finite, even though it no longer indexes person. Other examples of the functional shift of a non-finite construction as the main predicate are presented in Rose (forthcoming). They should be clearly distinguished from the cases of finitization discussed here, i.e. the gain of formal finiteness features of a verb form, which does not imply a change in main/dependent clause status. There is no strong correlation between non-finiteness and dependent clause status so that a non-finite clause can come to be used in main clauses and a non-finite dependent clause can gain finiteness features and become comparable in form with main clauses. Finitization is a label for the latter phenomenon.

Within this short cross-linguistic overview of finitization, the process presented in this paper is interesting for three reasons. First, some dependent clauses have undergone complete finitization and are now considered fully finite clauses. Finitization led to the renewal of dependent constructions. Second, different

degrees of finitization are observable in the other dependent clauses. Third, finitization constitutes the diachronic context within which loss of ergativity occurred. The following sections synthesize the information given in §3 on the finitization of each separate type of PTG dependent clause in Emérillon.

4.2 Finitization and re-ranking in Emérillon

Jensen's analysis focuses on the shift in indexation from absolutive to split-intransitive with hierarchical indexation. By way of contrast, the present paper takes a broader view on the general shift in dependency-coding, by adopting a construction approach that takes into account not only the indexation system, but also TAM, negation and dependency markers.

The dependent constructions of present-day Emérillon are all more finite than in PTG in that they do not make use of nominal morphology for tense and negation. In the gerundives and the SVC, TAM and negation are left unexpressed when obligatorily shared with the main clause. The temporal and *-βa?é clauses are even more finite after the extension of the independent verb morphology to the dependent verbs. The general direction of the shift is for dependent clauses to become identical to main clauses in terms of indexation, negation and TAM, i.e. away from non-finiteness. The shift in dependency-coding strategy is thus better presented as a shift from non-finite to finite dependent constructions, i.e. as finitization.

The dependent constructions also underwent a change in linking-device. It is not the verb anymore that is downgraded, but the whole clause. Either the verb suffixes were $lost^{17}$ and clause linking is not explicit any more (as in the case of gerundives), or they were reanalyzed as clause-final clitics (as in the temporal or *- β azé clauses). PTG dependent clauses were heavily marked as dependent, deranked in Stassen's terms, where 'deranking' is the presence of both non-finiteness and an overt morpheme on a verb form (1985). The loss of some dependent-marking suffixes in Emérillon thus constitutes a strong 're-ranking' process. On the basis of Lehmann's definition of 'desententialization' as a process of reduction of the subordinate clause, gradually leading to nominalization (Lehmann 1989), I would therefore say that this process of recuperation of clause properties could be called 'sententialization'.

Concomitant with the finitization process of recognized PTG dependent clauses, additional finite subordinate clauses have emerged in Emérillon through the reanalysis of two postpositions *-ehe* and *-upi* as subordinating clitics. This process

^{17.} Of interest for diachronic morphology is that concatenative morphology was lost but the subtraction device was maintained.

is not mentioned in Jensen (1990) for any Tupi-Guarani language. ¹⁸ (62) illustrates the polyfunctional use of *-upi*, one of these Emérillon morphemes, functioning as a postposition in (a) and as a subordinator in (b).

- (62) a. a-ho-tar iff pe-r-upi sinamari-pori.

 1sg.I-go-fut there path-reln-postp Sinamary-next.to

 "I will go there on the road near Sinamary."

 b. sə tapi?ir o-tui-r=upi-we, wãiwi-kom sə big tapir 3.I-become-reln-sub-too woman-pl big sə-we o-tui-ŋ.

 big-too 3.I-become-pl

 "As the tapir was growing, the girls were growing up too."
- In PTG, both morphemes are described as postpositions only: *ecé "with respect to", *upí "by means of, within an area, according to" (Jensen 1990). These postpositions could govern objects that were either nominal phrases or nominalizations. My hypothesis is that, when all the dependent constructions came to be marked in the same way as independent verbs in Emérillon, the same change occurred in nominalized clauses followed by a postposition. The postposition following nominalized clauses (now indexed in the same way that independent clauses are indexed) has been reanalyzed as a subordinator. ¹⁹ This constitutes an additional piece of the general finitization process undergone by Emérillon dependent constructions.

4.3 Finitization as a gradual shift between Proto-Tupi-Guarani and Emérillon

The shift in dependency-coding that took place between Proto-Tupi-Guarani and Emérillon is both complex and gradual. While Jensen's study focused on the change in the indexation system, the present paper adopts a construction perspective, where dependent constructions radically changed as a whole. They underwent four types of change: the loss of the absolutive indexation system (the topic of Jensen's study), the shift to verbal TAM and negation marking, the changes affecting dependency markers (with either loss or change of status of the marker) and the change in productivity (reduction in distribution and frequency). Table 3

^{18.} A parallel process seems to have taken place in other Tupi-Guarani languages, at least in Zo'é with the postposition *-ehé* (Cabral 2007: 253–254) and in Guaraní with the postpositions *gwi*, *gwivé*, *pevé* (Gregores & Suárez 1967: 188–189). To my knowledge, the development of the subordinating function of an original Tupi-Guarani postposition has not been studied besides my own study of Emérillon (Rose 2011).

^{19.} This process is parallel to the one described by Genetti (1991) for Newari, where case post-positions developed into adverbial subordinators (cf. also Rose 2006 for a typology of polyfunctional adpositions/subordinators).

summarizes how for each construction, one to four of these changes may have occurred, completely or partially (as for example, the partial loss of gerundive marking, with maintenance of the archaic subtraction morphological device).

		Loss of absolutive indexation	Shift to verbal TAM/NEG	Change in dependency marker	Change in productivity
			20		. 1 1.
Gerundive	intransitive	yes	no^{20}	yes ²¹	extended to
	(SVC)				transitive V2
	transitive	no	N/A	yes ²¹	rare
*-βa?é clause		yes ²²	yes	yes ²³	?
Temporal subordinate		yes	yes	yes ²⁴	no
Oblique-topicalized construction		yes	yes	yes	no longer a special construction

Table 3. Diachronic evolution of PTG dependent constructions in Emérillon.

Each dependent construction underwent finitization to different degrees, as illustrated in Figure 1. The fact that finitization affected some types of dependent constructions more deeply than others hints both at previous structural differences among PTG dependent constructions and at a chronology in the shift in dependency-marking.

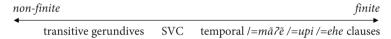


Figure 1. Degrees of finiteness in Emérillon dependent constructions.

Jensen (1990) gives a tentative order in which constructions were affected by the shift of indexation in the five languages she describes. A central point is that the shift is more advanced in intransitive verbs than in transitive verbs.²⁴ Interestingly,

- **20.** The final verb of Emérillon SVCs (the reflex of intransitive gerunds) cannot take any (nominal nor verbal) TAM or negation markers.
- **21.** The dependency marker has been lost, except for *r* subtraction.
- 22. This nominalization already used the same indexation system as independent verbs in PTG.
- **23.** *-βa?é is reconstructed as a verb suffix; its reflex is a clause-final clitic in Emérillon.
- **24.** Jensen (1990: 154) suggests that intransitive verbs were affected first, because in the original system the coding of the unique argument of an intransitive clause was complex. It could be marked in three different ways: Set I in independent clauses, II in dependent clauses and III in dependent clauses in cases of coreferentiality.

this shift also affects nominalizations, i.e. it does not concern dependent-constructions only. This is clear in Emérillon, where the absolutive pattern was maintained only in the transitive gerundives and in some very rare transitive nominalizations. ²⁵

Finally, it is worth noticing that non-finiteness nowadays constitutes a marked pattern in Emérillon. As indicated above, the transitive gerundive construction is not very productive. Remarkably, Emérillon nominalizations, which still show the absolutive pattern as well, are restricted to transitive roots and show a very low frequency of use in spontaneous discourse.²⁶

4.4 Finitization and loss of ergativity in some Tupi-Guarani languages

The wide process of finitization of dependent clauses includes replacing the absolutive and coreferential indexation system with a hierarchical indexation system in most Emérillon dependent constructions, i.e. in the temporal/conditional clauses, the oblique-topicalized construction and the intransitive gerundives. The shift in alignment is still only partial in that it has not affected the transitive gerundives.

Table 4 presents the shift in the indexation system that is the topic of Jensen's study. In diachronic terms, it is best analyzed as an extension of the system used in independent clauses to dependent clauses. It simplifies the overall indexation system of Emérillon, doing away with the split between independent- and dependentclause indexation patterns. It constitutes an interesting case of ergativity loss, also called 'accusativization' (Queixalós & Gildea 2010). Although ergativity is often presented as being intrinsically 'unstable', diachronic studies of alignment systems focus more often on the origin of ergativity than on its loss (Harris & Campbell 1995). A central point of the present paper concerns the non-autonomous nature of the shift in indexation system: it is not just a morphological replacement, but part of a constructional change.

Table 4. Shift of indexation system between Proto-Tupi-Guarani and Emérillon.			
	Proto-Tupi-Guarani	Emérillon	
independent clauses	split-intransitive with hierarchy	split-intransitive with hierarchy	
dependent clauses	absolutive pattern	residues of absolutive pattern	

4.5 Considerations regarding the genesis of finitization

This last section discusses some hypotheses on the genesis of the finitization process.

^{25.} The corpus does not show any examples of intransitive nominalization.

^{26.} There are fewer than ten spontaneous examples of nominalizations in my corpus of 32 texts.

First, Givón (1983, 2011) suggests that the distribution of non-finite syntax can be predicted by the degree of continuity between main and subordinate clauses, i.e. both referential continuity (equi-S and equi-O) and TAM continuity. The genesis of finitization may have been facilitated by the loss of continuity marking that occurred through the Tupi-Guarani family via the reduction in coreferentiality marking. Jensen (1998b) indeed postulates a gradual reduction in the use of the coreferential Set III in all Tupi-Guarani subgroups.²⁷ The languages that underwent the loss of the absolutive pattern also lost the coreferential pattern in dependent constructions.²⁸ Given that the coreferential pattern suffers a greater degree of loss than the absolutive pattern, I hypothesize that the loss of the coreferential pattern precedes the loss of the absolutive pattern. A consequence of the reduction of coreferentiality marking is that the degree of referential continuity between main and subordinate clauses, one of the major factors for non-finite encoding according to Givón, is left formally unmarked. The question remains open whether the reduction in continuity-marking can give way to finitization.

Second, some similarities between the PTG independent and dependent indexation patterns may have created ambiguous structures, facilitating a reanalysis in terms of finiteness and by analogy the extension of the independent pattern to the other dependent structures. These similarities are highlighted in grey in Table 5. First, the indexation of stative predicates is identical in both systems: S_p is indexed with Set II in both independent and dependent clauses. Second, the indexation of P is also realized in both systems with Set II, although in dependent clauses it is obligatory while in independent clauses it is a function of the relative position of A and P on the person hierarchy. Third, the third person Set I and Set III indexes are homophonous (*o*-). These three similarities between the two patterns could have led to the reanalysis of some dependent verb forms as independent verb forms, opening the way to a systematic extension of the independent

^{27.} According to Jensen (1998b), the maximal use of coreferentiality marking concerns all three persons in dependent clauses, nominalizations, other nominal phrases and postpositional phrases. The 'transitional use' reduces its distribution to third person; the minimal use targets only third persons in nominalizations, nouns and postpositions; finally, some Tupi-Guarani languages show no signs of Set III.

^{28.} Set III is replaced with either Set II or Set I on dependent verbs in the languages that underwent the loss of the absolutive pattern. Set III is unattested in Emérillon dependent clauses. It is still found on nominals to index objects of postpositions or a possessor coreferential with the subject of the clause, as in the following example. The paradigm is reduced to third person only.

⁽¹⁾ *o-ano o-iba-o ki?i*.

3.I-wait 3.III-pet-CONT then

"Then she is waiting for her (own) pet."

verb forms to the dependent clauses. This hypothetical reanalysis is obviously not a sufficient condition for the extension to have taken place, and indeed it did not take place in the other six Tupi-Guarani subgroups where the same conditions were also realized.²⁹

Table 5. Comparison of indexation patterns in dependent and independent clauses in Proto-Tupi-Guarani.

	Independent clauses	Dependent clauses
Set I	A (3rd person <i>o</i> -)	
	S _A (3rd person <i>o</i> -)	
Set II	P (hierarchy-dependent)	P (obligatorily marked)
	$S_{ m p}$	$S_{\mathbf{p}}$
		S_A
Set III		A (3rd person o-)
		S _A (3rd person <i>o</i> -)
		S_p

5. Conclusion

In this paper, I have offered a detailed account of a case of finitization of dependent clauses within a diachronic-syntax perspective taking into account constructions rather than only morphological changes. A previous study (Jensen 1990) focused on the change of person indexation systems within dependent clauses in some Tupi-Guarani languages, from ergative/absolutive to split-intransitive and hierarchical. I have taken here a broader view on this considerable shift in dependency-coding by taking into account the dependent constructions as a whole, i.e. their encoding of not only person, but also TAM, negation and dependency. I have argued that Proto-Tupi-Guarani dependent constructions were non-finite and have presented the shift in dependency-coding as a shift from non-finite to finite clauses. I have labelled this process finitization, i.e. a gain of finiteness features by a non-finite construction. The finitization process of Emérillon dependent clauses constitutes a particularly nice contribution to diachronic syntax, in that it illustrates finitization in progress, with different degrees of partial finitization as well as complete finitization. It also shows how alignment change, in this case

^{29.} The great shift in indexation system and other finitization mechanisms is indeed restricted to two Tupi-Guarani subgroups. There is no other obvious feature in subgroups 1 and 8 that this shift could correlate with.

ergativity loss, can take place within a context of a wider change of construction type. Finally, I have also presented interesting diachronic developments such as the emergence of serial verb constructions out of gerundives and the reanalysis of postpositions into subordinators.

Abbreviations

3.II Set II third person index

ABL ablative

ACNNR action nominalizer
AGNR agent nominalizer

CAUS causative

CIRCNR circumstance nominalizer

COMPL completive
COND conditional
CONT continuous
COP copula

demonstrative DEM EXCL exclusive future FUT gerundive GER ideophone IDEO imperative IMP inclusive INCL INDET indeterminate intensive INTENS irrealis IRR locative LOC

N/A no data available

NEG negation
NR nominalizer

овтор oblique topicalization

PAST nominal past

PL plural
POSTP postposition
POT potential

PTG Proto-Tupi-Guarani

REF referential

REFL	reflexive
REL	relativizer
RELN	relational marker (required by some vowel-initial verbs, nouns and postpositions when preceded by a Set II index or a full nominal within the same constituent)
S, A, P	argument of intransitive verb, most agent-like argument of transitive verb, most patient-like argument of transitive verb
SG	singular
SUB	subordination
svc	serial verb construction
TAM	tense-aspect-mood

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Résumé

Cet article décrit en détail le changement de finitude des propositions dépendantes de l'émérillon, une langue tupi-guarani parlée en Guyane française, et présente ce changement (passage des propositions non-finies à des propositions finies) dans le cadre de la disparition de l'ergativité dans les propositions dépendantes. Il montre que le changement de système d'indexation des personnes dans les propositions dépendantes de certaines langues tupi-guarani (Jensen 1990), passant d'un système ergatif à un système hiérarchique avec intransitivité scindée, n'est en réalité qu'un rouage d'un changement radical de stratégie d'encodage de la dépendance dans cette famille de langues. L'auteur en conclut qu'alors que les constructions dépendantes du proto-tupi-guarani étaient non-finies, elles ont évolué vers des propositions finies en émérillon. L'article rend compte en détail de ce processus graduel de 'finitization', c'est à dire une augmentation du nombre de traits relevant de la finitude. Il s'agit non seulement des marques de personnes, mais aussi de TAM, de négation et les marques de dépendance propositionnelle. Le changement de système d'alignement est ainsi présenté comme un changement non-autonome au sein d'une évolution diachronique de l'encodage syntaxique de la dépendance.

Zusammenfassung

Dieser Aufsatz beschreibt detailliert den Wandel von nicht-finiten zu finiten Nebensätzen in Emérillon, einer Tupi-Guarani Sprache in Französisch-Guayana und präsentiert diesen als den syntaktischen Kontext, in dem der Verlust von Ergativität stattfand. Es wird gezeigt, dass der

vormals beschriebene Wandel des Personen-Indexierungssystems in Nebensätzen in einigen Tupi-Guarani-Sprachen (Jensen 1990) von ergativischen zu spalt-intransitiven und hierarchischen Systemen nur ein Teilaspekt eines umfassenden Wandels in der Dependenz-Markierungs-Strategie ist. Die Autorin argumentiert, dass, während in Proto-Tupi-Guarani Nebensätze nichtfinit waren, diese in Emérillon zunehmend zu finiten Sätzen wurden. Dieser Aufsatz bietet eine detaillierte Erklärung dieses graduellen Wandels, der "Finitisierung" genannt wird, d.h. eine Zunahme von Finitheitsmerkmalen, darunter nicht nur Personenmarker, sondern auch TAM, Negation und Satzverbindungselemente. Bei dem Wandel in morphosyntaktischer Ausrichtung handelt es sich daher um einen nicht-autonomen Wandel im Kontext eines weiterreichenden diachronen syntaktischen Wandels in der Dependenz-Markierung.

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