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The origin of serialization: the case of Emerillon

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emphasis : bold in the examples

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Abstract

This paper gives clear synchronic evidence for the origin of serial verb constructions (SVCs) in Emerillon, a Tupi-Guarani language. SVCs in that language result from a gerundive construction after the loss of both a subordinator and an indexation pattern specific to dependent clauses. After a short review of the general literature on the origins of SVCs and their similarity to converbs (of which Tupi-Guarani gerundives may be considered a subtype), the author gives a detailed account of the Emerillon SVCs. Strong arguments then show that Emerillon serial verbs (superficially comparable to independent verbs) originate from a 'deranked' dependent clause. The paper ends with some discussions on clause linkage, comparing more specifically SVCs and converbs on the morphological, syntactic and functional levels.

The origin of serialization:

the case of Emerillon

Serialization can be both viewed as an analytic way of expressing different aspects of the same event ('take-come' for 'bring') and as a synthetic way of expressing complex events that would be expressed with several clauses in other languages ('hit-kill' for 'hit s.o. and kill them'). This fact may be put into the wider perspective of clause linkage seen as a continuum with the two extreme points being compression and elaboration. 'In a functional framework, clause linkage may be viewed as either representing two states of affairs so tightly interconnected that they form one complex state of affairs (compression), or on the contrary analyzing one state of affairs as composed of two (elaboration)' (Lehmann 1989: 217-218). On the diachronic level, many studies focused on the further compression of serial verbs through the studies of their grammaticalization (for instance Lord 1993). However, little interest has been shown for the diachronic source of serialization, although it is commonly implied that it issues from a more elaborated structure, such as a complex construction (syndetic or asyndetic). In this paper, I will show that serial verbs in Emerillon, a Tupi-Guarani language spoken in French Guiana (Rose 2003b, 2008, to appear), seem to be diachronically derived from a Proto-Tupi-Guarani converb construction (traditionally called gerundive). This construction, losing all its dependency markers, gave way to serialization, explaining most of the dependant characteristics of the final verb in the series. It constitutes a telling illustration, with clear diachronic evidence, of a move from complex clauses to complex

predicates. It also offers insightful data from the same language to discuss the typological proximity of converbs and serial verb constructions.

Section 1 will give a brief overview of the clause linkage framework, the literature on the origins of verb serialization and the comparison of serial verb constructions with converbs. In section 2, I will describe in detail the Emerillon serial verb constructions (hereafter SVCs). In section 3, I will propose the hypothesis that the source of Emerillon SVCs is to be found in a dependent construction, the Tupi-Guarani gerundive. I will conclude by showing how the diachronic reset of different parameters for clause linkage in Emerillon led to the emergence of a serial verb construction and compare converbs and SVCs on the morphological, syntactic and functional levels.[1]

1. Clause linkage and the origins of serialization

Putting aside the discussion on the defining criteria of serialization and its various types, most of the theoretical debates about serialization have focused on three distinct points of interest:

- the underlying structure of serialization (for a synthesis of the alternatives, see Larson 1991)
- the serialization parameters, i.e. the factors governing the occurrence of serialization cross-linguistically (for a synthesis, see Larson 1991) again)

[1] I am very grateful to Claudine Chamoreau and Patience Epps for their remarkably careful reading and their very helpful comments. I also want to thank two anonymous reviewers for their very inspiring suggestions.

- the grammaticalization of serial verb constructions (see for example Givón 1971) and the rich study by Lord (1993)), linked to the definition of serial verb constructions within complex predicates, and more generally on a continuum between parataxis and affixes (Lehmann 1989 for example).

In this paper, I would like to address a different question, that has been little discussed in the literature : the diachronic source of serial verb constructions in individual languages. It is directly linked to the three aforementioned questions. This question is raised here in relation to a specific language, Emerillon, for which the synchronic characteristics of SVCs and another related construction are better explained when looking at their diachronic development. Since the label *verb serialization* applies to a variety of structures within and across languages (cf. Lord 1993 : 1-3), I do not claim that my finding about the origin of SVCs in Emerillon and the theoretical remarks that derive from it should be generalized to all serializing languages. Yet the unusual diachronic hypothesis presented here may bring new insights to the general discussion of serialization, both at the descriptive and theoretical levels.

1.1. About clause-linkage

Claude-linkage typology shows that the major two opposing forces at work in clause linkage are elaboration on one side, and compression of lexical and grammatical information on the other side.

"The first acts towards the elaboration of a phrase into a more fully developed construction which contains its own predication with all the accessories. Methodologically, this implies starting from the simple independent clause and gradually elaborating it into a complex sentence by expanding its constituents into clauses. [...] The

opposing force acts towards the compression of a full fledged clause to a nominal or adverbial constituent of a matrix clause. Methodologically, this implies a derivation of complex sentences which starts from a set of complete clauses, reduces one of them through desententialization and combines them into one complex sentence by embedding them into each other" (Lehmann 1989).

Clause linkage is to be viewed as a correlation of various semantico-syntactic parameters (Lehmann 1989):

i. the hierarchical downgrading of the subordinate clause,

ii. the main clause syntactic level of the subordinate clause,

iii. the desententialization of the subordinate clause,

iv. the grammaticalization of the main verb,

v. the interlacing of the two clauses,

vi. the explicitness of the linking.

Desententialization, i.e. the loss of the properties of a clause such as its illocutionary force, TAM, actants and circumstants (Lehmann 1989), is closely linked to the best known notion of *non-finiteness*, a "clausal category defined in terms of a clause's degree of similarity to the prototype transitive main clause" (Givón 1990). *Deranking* includes both non-finiteness and the presence of an overt morpheme attached to the verb form (Croft 2001, Stassen 1985). This terminology, as well as the parameters for clause linkage, will be used in the rest of the paper to characterize the constructions under study and the changes in clause linkage.

Verb serialization stands in an intermediate stage between the two extremes of the clause linkage continuum, i.e. between full elaboration and full compression. A serial verb is syntactically very tightly tied to the main verb (with which it forms a complex

predicate) but displays relatively less deranking properties than some other dependent constructions. It could therefore arise diachronically from an independent or a dependent verb form. In 1.2, I will briefly present some theoretical assertions first on independent clauses and second on complex sentences as a possible source for verb serialization, and specify in each case the type of change in respect to clause linkage parameters.

1.2. Possible origins of serial verb constructions

We will first consider independent clauses as a possible source for verb serialization. These clauses could be linked either syndetically or asyndetically. Concerning the asyndetic alternative, Noonan clearly established the syntactic and semantic similarities of parataxis and serial constructions (Noonan 1985). The following Fon examples illustrate how juxtaposition (1) and serialization (2) are comparable, differing formally in the argument sharing (pronominal resumption being agrammatical in serialization). In a very iconic manner with this key difference in the *interlacing* parameter of clause linkage, while in juxtaposition the two events may take place in different spatio-temporal frames, serialization links the two activities as sub-events of a complex event taking place in a single spatio-temporal frame.

Fon (Lambert-Brétière 2005)

(1) *ùn* *fàn* *gàli* *nù* *è.* juxtaposition

1SG.S dilute gari drink 3SG.O

I diluted gari and drank it.

(2) *ùn* *fàn* *gàli* *nù.* serial verb construction

1SG.S dilute gari drink

I diluted (and) drank gari.

Now dealing with the possible origin of verb serialization in syndetic coordination, Croft suggests that "the intermediate structure between syndetic coordination (with a conjunction) and serial verb constructions is represented by types of asyndetic coordination" (Croft 2001). Here is an example of an overt coordinated structure giving rise to verb serialization, via the optional presence of a conjunction. This constitutes a shift in regard with the clause linkage parameter called *explicitness of linking*.

Mooré (Croft 2001)

(3) *a* *ịku* *sụugā* *(n)* *wāg* *nemdā*

he took knife CONJ cut meat

He cut the meat with a knife.

We will now consider complex constructions as a possible source for verb serialization, especially sequential constructions such as clause chaining. There are some functional similarities between clause chaining and serial verb construction, although clause chaining involves a juncture of several clauses with distinct argument structures. Foley, in his description of clause chaining in the Papuan languages of New Guinea, notices that in one area of New Guinea, both clause chaining and verb serialization are absent (Foley 1986). For the author, this constitutes a further evidence that the two grammatical constructions are related. DeLancey gives a clear example of how clause chaining gave rise to verb serialization in Modern Tibetan (DeLancey 1991). Tibetan displays a clause-chaining structure, in which zero anaphora is possible. The final verb is

marked for tense, aspect and evidentiality, while the other verbs show a special suffix. This non-final subordinator can not be omitted in Lhasa Tibetan. The development of final verb suffixes had to go through the innovation of a serial construction before auxiliarization and the later morphologization stage. For the first stage (the development of a uniclausal construction out of a biclausal structure), semantic reanalysis is necessary but not sufficient: it involves the loss of the non-final marker of subordination such as in the example below with optional serialization. Once again, a shift occured on the parameter *explicitness of linking*.

Lhasa Tibetan (DeLancey 1991)

(4) *kho bros(-byas) phyin-pa red*

he flee(NF) went PERF

He fled (in some direction other than hither).

Within complex sentences as possible sources for serialization, let us now focus on converbs. The hypothesis I will put forward for Emerillon is that the source of serial verb constructions is to be found in gerundives, a type of converb.

1.3. Proximity of serial verb constructions and converbs

The basic difference between converbs and serial verbs seems to be the presence of a morphological dependency marker. Otherwise, converbs, like serial verbs, do share their arguments, their TMA specification, and basically carry the same functional load (Haspelmath 1999). "There are many common points between asymmetrical serial verbs, medial verbs and converbs [...], they specify the circumstances of the main action (manner, instrumental, concomitance, locative, etc…), with a similar scale of

desententialization [...]. But there is a major difference: asymmetrical serial verbs may only be modifiers of verbs and do not display any dependency marker or non-finite verb morphology, while converbs are non-finite verb forms […] whose main function is to mark adverbial subordination, they are modifiers of verbs, clauses or sentences" (Bril 2004). Within the typology of clause linkage, this difference can be stated in terms of the parameters of *main clause syntactic level of the subordinate clause*, and *explicitness of linking*.

Bisang explores in detail differences and similarities between verb serialization and converbs (Bisang 1995). The author argues that serializing languages can not have converbs. According to Bisang, languages with verb serialization show a high degree of indeterminateness with regard to several categories (person, TMA ...). This very same fact prevents serial languages from developing a system of asymmetry opposing more or less complete verbal forms (*desententialization* parameter), a distinction necessary for converbs to exist. However, at some point, the author mentions that maybe the role of indeterminateness as a factor for asymmetry is too simplistic, and that the difference between serializing languages and converb languages may be just morphological (*explicitness of linking* parameter).

Shibatani further develops the idea that the contrast between converbs and serialized verbs is only superficial (Shibatani 2009). More specifically, the author argues that in serialization, only one verb of the series displays the full range of formal finiteness features and can consequently function as an independent predicate. The other verbs of the series lack full autonomy, either by being non-finite or by being dependent upon another verb with regard to the finiteness features, and do not form a separate predication. As such, they are formally and functionally comparable to converbs. The

author concludes that beside the presence or absence of a dependency marker, converbs and serial verb constructions do not differ in their syntactic restrictions and form a single type of complex predicates.

Since Emerillon does display both serial verb constructions and a type of converb (called gerundive), those interesting questions will be addressed again in the conclusion, after the presentation of the Emerillon serial verb construction (Section 2) and its origin (Section 3).

2. Emerillon serial verb construction

Emerillon is spoken exclusively in French Guiana by a small community of about 400 speakers, who call themselves Teko. The Teko people live in two areas of French Guiana: in the western part, next to the Maroni river (the border with Suriname); in the eastern part, at the Oyapock-Camopi confluence (on the border with Brazil). This community is the result of the aggregation of surviving members of different small ethnic groups, mainly of Tupi-Guarani origin (Navet 1994). Emerillon thus pertains to the Tupi-Guaraní family (consisting of over forty languages) of the Tupi stock (Rodrigues 1984-1985, Velázquez-Castillo 2004). "Tupí-Guaraní is noted for a high degree of lexical and morphological similarity among its member languages in spite of their extensive geographical separation" (Jensen 1999: 128). The data presented in this paper have been collected in the field by the author between 1999 and 2004. Spontaneous or semi-spontaneous texts were recorded and extra examples were elicited from various speakers[2].

[2] I wish to thank here all my Emerillon collaborators, as well as members of the program of the French *Fédération de Recherche Typologie et Universaux Linguistiques* called *Prédicats complexes* –

Emerillon displays a construction that nicely fits the generally accepted definition of a serial verb construction: a sequence of two or more verbs that share at least one argument, act together like a single complex predicate and generally express only one event, without any marker of subordination or coordination (see for example Aikhenvald and Dixon 2006, Bril 2004, Durie 2000, Pawley and Lane 1998, Schiller 1990, Durie 1996). Emerillon serial verb constructions indeed consist of several verbs that share the same subject, the same object (if need be), the same TMA, the same positive/negative value and seem to express a single event, in a single prosodic group.

I will first address the syntactic criteria defining the serial verb construction in Emerillon, categorize it within the typology of serial verb constructions and characterize it in terms of clause linkage (2.1). I will then develop the description of serialization in Emerillon, specifying on the one hand the different types of argument structure that the SVCs allow (2.2) and on the other hand the meanings they carry (2.3).

2.1. Formal properties

2.1.1. Absence of explicit dependency marker

Serial verbs form a unique predicate (5) that, unlike a dependent construction (6), does not take any subordinator or coordinator.

(5) *a-weʤu-taɾ* *a-zaug* serial

1SG.I-go.down-FUT 1SG.I-bathe

I am going down (to the river) to bathe.

Constructions verbales en série and directed by Bernard Oyarçabal and Waltraud Paul. For a comprehensive description of Emerillon grammar, see Rose 2003 and for a typological overview Rose 2008.

(6) *a-wedʒu-taɾ* ***t-****a-zaug* non-serial

1SG.I-go.down-FUT **PURP**-1SG.I-bathe

I will go down (to the river) in order to bathe.

Moreover, every verb that appears in a series can also act as a full and autonomous verb in an independent clause. The following examples show how each verbal form of a series like (7) can be used as the main verb in an independent clause as in (8) and (9).

(7) *o-****nan*** *o-ze-****mim*** serial

3.I-run 3.I-REFL-hide

He runs to hide.

(8) *zawaɾ o-****nan*** *i-dʒuwi* non-serial

dog 3.I-run 3.II-from

The dog runs away from him.

(9) *koɾ zawaɾ o-ze-****mim*** *i-dʒuwi* non-serial

then dog 3.I-REFL-hide 3.II-from

And then the dog hides from him.

2.1.2. A single predicate

Serial verbs also differ from sequences of independent verbs in a number of ways. First, the serial verbs belong to a single prosodic constituent. In example (10), there is no

intonation break, no internal pause between the serial verbs. In contrast, example (11) contains an intonation break and a pause between each verb: it illustrates a sequence of independent (non-serialized) verbs.

(10) *a-nan* *a-ze-mim* serial

1SG.I-run 1SG.I-REFL-hide

I run to hide.

(11) *maziʔog waita–pope o- naŋ, o-weraho, o- pirog, o-kusug, o-kirig.* non-serial

manioc basket-in 3.I-put 3.I-carry 3.I-peel 3.I-wash 3.I-grate

She puts the manioc in a basket, carries it, peels it, washes it and grates it.

Moreover, morphophonemics reveal a tight link between two succeeding serial verbs. A final stop or affricate is normally unreleased in Emerillon (12), except when immediately followed by another item within the same constituent. The morphophonemics of serial verbs indicate that they belong to the same prosodic constituent (13).

(12) *aman* *o-**ʔar*** **[oʔatˤ]**[3] non-serial

rain 3.I-fall

The rain is falling.

(13) *aman* *o-**ʔar*** ***o-ʔu*** **[oʔaroʔu]** serial

[3] In the absence of an alveolar voiced stop in the Emerillon phonological system, the voiced correspondent of the unvoiced alveolar stop [tˤ] is /ɾ/.

rain 3.I-fall 3.I-come

The rain is falling on us.

The syntactic behavior of serial verbs also show they constitute a single predicate: like any single verb, they can form the unique predicate of a subordinate clause, introduced by a single relativizer (14) or subordinator (15).

(14) *ɨaɾ-a-pe a-iɲuŋ sibo* ***o-ho o-weta-ŋ****-a-maʔẽ.* serial

canoe-REF-in 1.I-put creeper 3.I-go 3.I-cut-PL.S-REF-REL

I put in the canoe the creepers that people had gone to cut.

(15) *koɾ o-poʔo tupa* ***t-o-wiɾ*** ***o-ʔa****.* serial

then 3.I-pick nest PURP-3.I-break.away 3.I-fall

Then he picks the (wasp) nest so that it falls.

A final argument for the analysis of serial verbs as a complex predicate is the placement of the following clitics: the plural subject *–(o)ŋ* and the continuous aspect *–o* or *–(i)ɲ*. These constituent affixes are suffixed to the last element of the predicative constituent (most often the verbal phrase). Their placement after the last verb of the series shows that serial verbs are treated as a single verbal phrase.

(16) *o-ekaɾ o-wawag-****oŋ****.* serial

3.I-search 3.I-wander-**PL.S**

They look for him all over the place.

(17) *o-wuɾ o-ho-****ɲ*** *wate-kotɨ.*

3.I-go.up 3.I-go-**CONT** above-towards

She is going up.

2.1.3. Sharing TMA and polarity

In Emerillon, serial verb constructions may contain only one TMA and one negation marker, always marked on the first verb of the series. These operators have both verbs under their scope.

(18) *a-nan-**tar*** *a-ze-mim* serial

1SG.I-run-**FUT** 1SG.I-REFL-hide

I am going to run and hide myself.

(19) ***d-**a-nan-**i*** *a-ze-mim* serial

NEG-1SG.I-run-**NEG** 1SG.I-REFL-hide

I did not run and hide myself.

When a TMA or negation operator is carried by several subsequent verbs as in (20) or by a non-initial verb of the sequence as in (21), there is necessarily an intonation break between those verbs. In that case, each verb is then the predicate of an independent clause, expressing a separate event. TMA or negation scope is restricted to the verb it affixes to.

(20) *a-nan-**tar,*** *a-ze-mim-**tar*** non-serial

1SG.I-run-**FUT** 1SG.I-REFL-hide-**FUT**

I will run, I will hide myself.

(21) *a-nan,* ***d-****a-ze-mim-****i*** non-serial

1SG.I-run **NEG-**1SG.I-REFL-hide-**NEG**

I ran, I did not hide myself.

2.1.4. Argument sharing

In Emerillon, serial verbs share their subject (22), and if the case arises, their object (23).

(22) *teko-kom* ***o-popoɾ*** ***o-ho****.* serial

Emerillon-PL 3.I-scatter 3.I-go

The Emerillon scattered (away).

(23) ***o-kuaɾ*** *zadupa* ***o-kiɾig****.* serial

3.I-find genipa 3.I-grate

She found genipa and grated it.

Just like independent verbs, each verb of the series carries a person index following a hierarchical system. This person index is taken out of one of two sets. Set I marks the subject of intransitive or transitive verbs, while Set II marks the object of transitive verbs. Transitive verbs allow only one person index, taken either from Set I for their subject or from Set II for their object. The correct index is selected according to the relative position of the two arguments on the person hierarchy 1/2 > 3, or on the grammatical relation hierarchy S > O when two third persons or two speech act participants are involved (Rose 2003, to appear). In Emerillon, this hierarchical indexation systems apply to both independent and dependent clauses (with the exception of

gerundives presented in Section 3.5.1). In the two examples above, the third person subject is marked on each verb with the Set I *o-* prefix.

As this discussion has illustrated, Emerillon displays the features usually associated with serialization. However, its serial verb construction differs from the usual examples of serialization (typically from some isolating Southeast Asian or West African languages or Creoles) in that person is morphologically present on each verb. This peculiarity has already been described in some other languages, like Tariana for example (Aikhenvald 1999). Moreover, constituents like the adverb *kʷi* in (24), the subject *ijɨ* in (25), the object *baʔezaʔu* in (25) or the postpositional phrase *ʔɨ-b* in (26) can be inserted in between the verbs of the series.

(24) *o-**ʔu(ɾ)**-taɾ* *kʷi* *poɾo-mõ-**maʔam**.* serial

3.I-come-FUT one.day INDET.II-CAUS-rise

He will come one day to raise people (from the dead).

(25) *o-keɾ-o-nam,* *o-**ho*** *i-(j)ɨ* *baʔezaʔu* *o-**mumuŋ**-õ.* serial

3.I-sleep-CONT-when 3.I-go 3.II-mother food 3.I-cook-CONT

While she is sleeping, her mother goes to prepare the food.

(26) *tapug* *o-**poɾ**-eʔe* *ʔɨ-b* *o-**ʔa**-ŋ.* serial

IDEO 3.I-jump-ITER river-in 3.I-fall-PL.S

Splash, they dive (jump and fall) into the river again and again.

It is thus clear that Emerillon serial verbs are not only distinct grammatical words, but also non-contiguous serial verbs, in line with Durie's typology (cf. Durie 1996: 302, 2000). In Foley and Olson's terms, Emerillon displays serialization at the core layer. In core serial verb constructions, each verb selects the arguments with which it forms a nucleus (although some kind of co-referentiality is still required). Therefore, according to the authors, in core serialization, each verb may retain morphological marking for person agreement, and the polarity of the initial verb does not necessarily have scope over the whole series[4]. This type of serialization contrasts with nuclear serialization, where the two stems follow each other with no intervening material and person agreement is marked only once (Foley and Olson 1985). Even though Emerillon serial verbs are non contiguous and are all marked for person, they do share a single argument structure. In 2.2., a detailed account of their possible argument structures will be given.

2.1.5. Characterization of Emerillon SVCs in terms of clause linkage

i. hierarchical downgrading of the subordinate clause (parataxis ↔ embedding):

Constituting a single predicate (2.1.2), the Emerillon serial verbs are far from both extremes on this continuum. They are yet subordinate in the sense that they belong to the same construction than the main verb.

ii. main clause syntactic level of the subordinate clause (sentence ↔ word)

Along this continuum, complex predicates like the Emerillon SVCs are clearly at play within the verbal phrase (2.1.2).

iii. desententialization of the subordinate clause (sententiality ↔ nominality)

[4] In Emerillon SVCs, each verb carries person agreement prefix and negation has scope over the whole series (cf. Sections 2.1.3 and 2.1.4).

This is the most complex parameter for the Emerillon SVCs. Serial verbs do not seem a priori highly desententialized since they look like independent verbs and do not take special person indexes, negation or TMA markers like the nominalizations do in Emerillon (2.1.1). However, they can not be independently marked for negation and TMA (2.1.3) and in that respect, they are somewhat non-finite.

iv. grammaticalization of the main verb (independent predicate ↔ grammatical operator)

The study of argument structure to come (2.2) will show that the main verb is not grammaticalized.

v. interlacing of the two clauses (clauses disjunct ↔ clauses overlapping)

Interlacing of the predicates is quite strong, with sharing of arguments (2.1.4), TMA and polarity (2.1.3).

vi. explicitness of the linking (syndesis ↔ asyndesis)

Expliciteness of linking is minimal, with no subordinator (2.1.1).

On the whole, SVCs show a rather compressed linkage, with fusion in a complex predicate. This is balanced with some elaboration in terms of rather weak desententialization and lack of grammaticalization of the main predicate.

2.2. Argument structure

Being monoclausal, serial verb constructions in Emerillon always share their core arguments: all verbs having identical subjects and objects, where applicable. Since the two core arguments always must be coreferential, the 'switch-subject' type of serialization is never found in Emerillon. In the switch-subject serialization type, the object of the initial verb is coreferent with the agent of the final verb, as illustrated below in Fon.

Fon (Lambert-Brétière 2005: 101)

(27) *é* *xò* *bɔ́lù* *ɔ́* *yì* *kɔ́xò*

3SG.S hit ball DEF go outside

He threw the ball outside (he hit the ball it went outside).

Instead, the combination of arguments where the subject of the second verb is identical to the object of the first verb is structured in a biclausal sentence in Emerillon, the second clause being a final subordinate clause as in (28) or (29).

(28) *o-iɲuŋ* ***t-****o-ʤu.* purpose subordination

3.I-put **PURP-**3.I-cook

He puts it to cook.

(29) *zapara-kotɨ* *o-mõbor* ***t-****o-ʔar-o.* purpose subordination

cliff-towards 3.I-throw **PURP-**3.I-fall-CONT

He throws him towards the cliff so that he falls.

Serial verbs thus always share identical subjects, and likewise share objects when both verbs are transitive. However, in the vast majority of cases, at least one verb of the

series is intransitive. I will now present the different possible types of combinations between verbs, depending on their valence. It is important to note that even though nominal phrases are not marked for case, constituent order in Emerillon is flexible; the basic order being SV in intransitive clauses, and SOV or SVO in transitive clauses. However, full nominal phrases are rather rare in discourse[5], person marking on the verb being compulsory.

a. Intransitive V1 and V2

This is by far the most frequent combination.

(30) *wiɾ* *o-apaɾ-a-ɾ-aha* ***o-nan*** ***o-ho*** *ta-b.* serial

fast 3.III-weapon-REF-RELN-for 3.I-run 3.I-go place-in

He runs fast to the village to get his weapon.

b. Intransitive V1, transitive V2

This is a rather frequent combination. In (31), where the object is expressed, it intervenes between the two verbs. It is then in its normal position with respect to the transitive verb. But it can also be located before or after the whole series, showing that, as far as argument structure is concerned, the series functions as a single complex predicate (32)(33).

(31) ***o-ho*** *o-iba* ***o-ekaɾ-oŋ*** serial

3.I-go 3.III-pet 3.I-search-PL.S

They go and look for their pet.

[5] This may not be obvious from the selection of examples included in this paper. For the sake of illustration, examples with nominal phrases have often been preferred.

(32) *o-iba* ***o-ho*** ***o-ekar-oŋ*** serial

3.III-pet 3.I-go 3.I-search-PL.S

They go and look for their pet.

(33) ***o-ho*** ***o-ekar-oŋ*** *o-iba* serial

3.I-go 3.I-search-PL.S 3.III-pet

They go and look for their pet.

The placement of the object before V2 seems to be preferred in spontaneous discourse (see also (25)):

(34) *Mama,* ***oro-ho-tar*** *baipuri* ***oro-zopoʤ.*** serial

Mom 1EXCL.I-go-FUT tapir 1EXCL.I-feed

Mom, we are going to feed the tapir.

c. Transitive V1, intransitive V2

This combination is rare. One occurrence shows the object in medial position (following the verb that governs it (35)), and another in the initial position (preceding the verb that governs it (36)). Examples are too scarce to make generalizations on the placement of the object.

(35) ***o-ezar*** *arakapusa* ***o-ho****.* serial

3.I-leave gun 3.I-go

He went and left the gun.

(36) *e-ɾe-da* ***ɨpɨ*** ***a-ezaɾ*** ***a-ho***. serial

1SG.II-RELN-place former 1SG.I-leave 1SG.I-go

I abandoned my former village.

d. Transitive V1 and V2

This is also a rare combination. Some examples present an object between the verbs, as (37) and (23) do; others present an object after the serial verbs (38).

(37) ***o-poʔo*** *ɨŋa* *i-ʤupe* ***o-meʔeŋ***. serial

3.I-pick fruit.sp. 3.II-to 3.I-give

He picks an ɨŋa and gives it to him.

(38) ***o-eɾaho*** ***o-bo-ʔa*** *o-ɾek^{w}aɾ*. serial

3.I-carry 3.I-CAUS-lie 3.III-spouse

He carries his wife to lay her down. (Lit. : He carries he lays down his wife.)

Series of more than two verbs are found, but the small number of attested examples in proportion to the great number of possible combinations does not permit any generalizations.

(39) ***o-ho*** ***o-ekaɾ*** ***o-kwa-ɲ***. serial

3.I-go 3.I-search 3.I-pass-CONT

He goes looking for him.

(40) *imani mun-a-kom* ***o-ho*** ***o-(w)eta*** *beku* ***o-iɾuɾ-oŋ*** serial

many people-REF-PL 3.I-go 3.I-cut creeper sp. 3.I-bring-PL.S

Many people went to cut the creepers and bring them back.

(41) ***o-ho*** *ʔi-ɾ-upi* ***o-iɾuɾ*** ***o-mumuɲ-õ*** *baʔe.* serial

3.I-go river-RELN-to 3.I-bring 3.I-cook-CONT thing

She went to the river and brought something back to cook.

In conclusion, in Emerillon, SVCs usually contain two verbs, each of which may be either transitive or intransitive, all four combinations being attested. However, these differ in productivity: examples where the first verb is transitive are rare. Most series begin with an intransitive verb. As is discussed below, this is due in part to semantic reasons, in part to diachronic reasons.

2.3. Semantic functions

This section will present the main meanings conveyed by serial verb constructions in Emerillon, specifying for each particular meaning the order of the verbs and whether they belong to specific semantic classes.

A common distinction is the symmetrical/asymmetrical dichotomy borrowed from (Aikhenvald and Dixon 2006). In asymmetrical SVCs, one of the verbs is taken from an open class and the other one from a closed class, while in symmetrical constructions both verbs are taken from open classes. It is well known since Durie (1996: 291) that, in the languages of the world, asymmetrical SVCs are prone to grammaticalization, while symmetrical SVCs are liable to lexicalization so that their resulting meaning can not be built analytically on the meaning of each verb of the series (Aikhenvald 2006: 30). In Emerillon, both symmetrical and asymmetrical SVCs are found. The two main specific

functions of serial verb constructions in Emerillon are direction serialization and motion serialization.

2.3.1. Sequential serialization : a symmetrical construction

Most of symmetrical constructions of Emerillon involve sequential serialization, referring to sequences of sub-events. The first example below is a frequently encountered sequence encoding the event of falling: the first verb expresses the fact of breaking away, the second one the vertical movement.

(42) *lafenet-a-ɾ-upi* ***o-wiɾ*** ***o-ʔa.*** serial

window-REF-RELN-through 3.I-break.away 3.I-fall

He fell through the window.

(43) ***o-pihig-oŋ*** ***o-mo-gagua-ŋ***. serial

3.I-catch-PL.S 3.I-CAUS-grow-PL.S

They caught it and raised it.

(44) ***o-poʔo*** *ɨŋa* *i-ʤupe* ***o-meʔeŋ***. serial

3.I-pick fruit.sp. 3.II-to 3.I-give

He picks an ɨŋa and gives it to him.

Sequential serialization implies no constraint in terms of lexical selection (other than cultural and discursive), nor in terms of valence of the verbs. Each verb may be either intransitive or transitive. The order of the verbs must iconically reflect the

temporal succession of sub-events. Within the realm of Emerillon symmetrical serialization, no cases of lexicalization was brought to my attention.

Some other examples resemble the sequential type presented just above but could alternatively be analyzed as manner serialization, i.e. a verb series where one verb (V2 in (45)-(47), V1 in (48)) functions as a modifier to describe the action expressed by the other verb. This alternative analysis seems interesting in cases like (45) and (46) where it is doubtful that sequentiality is respected by the linear order of the verbs. It is of less interest when the sub-events are simultaneous or presented chronologically as in (47) or (48).

(45) ***si-ze-mim*** ***si-nan.*** serial

1INCL.I-REFL-hide 1INCL.I-REFL-run

We hide running.

(46) ***si-manõ-tar*** *aʔe-nam* ***si-ʔa***. serial

1INCL-die-FUT DEM-when 1INCL-fall

If this happens, we will die in the fall.

(47) ***o-ho*** ***o-nan***. serial

3.I-go 3.I-run

He goes running.

(48) *wɨn-a-kom* ***o-ze-mõ-kasi*** ***o-ʔu***. serial

DEM-REF-PL 3.I-REFL-CAUS-strength 3.I-come

They come with all their strength.

2.3.2. Motion serialization

A second type of serial verb construction is motion serialization. In motion serialization, the initial verb is a motion verb, the following verb (or verbs) labels an action. Non-initial verbs may be intransitive or transitive.

(49) ***o-ho*** *ko-pupe* ***o-tarawadʒ***. serial

3.I-go field-in 3.I-work

He went to work in the field.

(50) ***o-ʔuɾ*** ***o-kaʔa-kaʔaɾ*** *itʃig.* serial

3.I-come 3.I-RED-break drop

She came and broke it down.

This meaning may seem similar to the expression of goal. However, Emerillon has a distinct final subordination to express purpose (51). There is no clue of grammaticalization for motion serialization.

(51) *o-mõ-ba(g)-gatu* ***t-****o-paʔam.* purpose subordination

3.I-CAUS-wake.up-well **PURP-**3.I-get.up

She wakes them up well so that they get up.

It is uncertain whether motion serialization is really distinct from sequential serialization or should be considered a subtype of it. It can be considered to be asymmetrical, since the initial verb can be said to be selected out of a closed class of

motion verbs. But it shows no formal differences with sequential serialization, contrarily to direction serialization, a clear case of asymmetrical construction (cf. 2.3.3.). Moreover, semantically, it is true that motion serialization is a type of sequential serialization. Its particular meaning of motion derives from the meaning of the initial verb, that could be said to be selected out of the open class of action verbs. The borderline between motion serialization and sequential serialization is difficult to draw, because it is difficult to determine in a neat closed class of "motion verbs", as illustrated by the following cases where the initial verb expresses an action implying motion, but without deixis (52) or with more than deixis (53).

(52) ***o-nan*** ***o-ze-mim***. serial

3.I-run 3.I-REFL-hide

He ran to hide.

(53) *wate-kotɨ* ***o-(w)er-aho*** *kaʔi* ***o-mo-ãtã*** *wɨra-pope.* serial

above-towards 3.I-CAUS.SOC-go monkey 3.I-CAUS-hard tree-in

The monkey carries it up (the tortoise) and wedges it in the tree.

However, the cases of motion serialization occur with a frequency much higher than the other cases of sequential serialization. It may also be more compact semantically, in that the sub-event of the motion is tightly knit to the action event. For those reasons, I treat them separately.

Direction serialization alone displays substantial morphosyntactic differences. This shows there is a ground for the asymmetrical *vs* symmetrical serialization.

2.3.3. Direction serialization : an asymmetrical construction

In direction serialization, the first verb refers to an action and the final verb specifies the direction in which this action is realized. The final verb is selected out of a very short list of motion verbs expressing deixis (all intransitive verbs): *ʔuɾ* 'come, movement towards the reference point', *ho* 'go, movement away from the reference point', *ʔaɾ* 'fall, vertical movement', *wawag* 'wander, movement in different directions', and *kwa* 'pass, movement with no particular orientation'. The following sentences show each of these direction verbs as the final verb of a series. The contrasting last two examples, where the initial verb also expressed direction, highlight the importance of expressing the deictically defined direction towards (57) or away from (58) the point of reference.

(54) *tapug* ***o-poɾ-eʔe*** *ʔi-b* ***o-ʔa-ŋ***. serial

IDEO 3.I-jump-ITER river-in 3.I-fall-PL.S

Splash, they dive (jump and fall) into the river again and again.

(55) *eiba-ãhã* *kaɾupa-ɾ-ehe* ***o-zebaraʤ*** ***o-wawag.*** serial

3.II.pet-only wasps'nest-RELN-with 3.I-play 3.I-wander

His dog only plays around with the wasps' nest.

(56) *kaʔi* ***o-wata*** ***o-kʷa-ŋ***. serial

monkey 3.I-walk 3.I-pass-CONT

The monkey is walking by.

(57) *kaʔi* ***o-wedʒu*** ***o-ʔu*** serial

monkey 3.I-go.down 3.I-come

The monkey is coming down.

(58) *kaʔi* ***o-wedʒu*** ***o-ho*** serial

monkey 3.I-go.down 3.I-go

The monkey is going down.

Emerillon tends to specify the direction of actions, and does it quite regularly when the initial verb expresses an action implying motion. It may be that direction serialization is on the verge of becoming grammaticalized (and obligatory). In directional SVCs, most initial verbs express an action implying motion and are intransitive. However, and especially with the direction verb *wawag* ('to wander'), it is possible to find initial verbs referring to actions that do not necessarily imply motion (as in (55)), and therefore to find initial transitive verbs (as in (16)).

Direction serialization can be singled out among serialization types due to a specific syntactic property. It is the only type of series that is maintained in imperative clauses, as in (59) and (60). The imperative mood is marked with a special person index for second person singular subject *e-* (where *ere-* marks a second person singular subject in non imperative clauses).

(59) ***e-hem*** ***e-kʷa!*** serial

2SG.IMP-go.out 2SG.IMP-pass

Go out!

(60) ***e-wuɾ-a-nã̃*** ***e-zo***. serial

2SG.IMP-go.up-REF-INJ 2SG.IMP-come

Come up here!

Sentences with motion or sequential semantics can not make use of serialization in the imperative mood (61). The language then resorts to purpose subordination, as illustrated in (62) and (63) respectively.

(61) * ***e-kʷa*** ***e-zaug***! serial

2SG.IMP-pass 2SG.IMP-bathe

Go and bathe!

(62) *e-kʷa* ***t-****eɾe-zaug!* purpose subordination

2SG.IMP-pass **PURP-**2SG.I-bathe

Go and bathe!

(63) *e-pɨhɨg* *aʔɨ-am* ***t-****eɾe-mõ-gagua.* purpose subordination

2SG.IMP-catch sloth-TRANSL **PURP-**2SG.I-CAUS-grow

Catch a sloth and raise it!

The following example illustrates this constraint nicely. The sentence expressed a command, but only the first two verbs are in the imperative mood, forming a direction series. The third verb is introduced in a final subordinate clause; otherwise the series would constitute a motion or sequential SVC.

(64) ***e-zaʔog*** ***e-zo*** ***t-****eɾe-ʔu* *baʔ(e)-am.* serial + purpose sub.

2SG.IMP-go.out 2SG.IMP-come **PURP-**2SG.I-eat thing-TRANSL

Come out (from the river) and eat something.

This specific property of direction series probably indicates that this kind of SVC forms a tighter unit than the others. Without going as far as to suggest a grammaticalization process of the direction verb into a directional particle, I would like to underline that direction series constitute a regular expression of the functional category 'directionals', i.e. a first step on the grammaticalization path. This point is to be correlated with its classification as an asymmetrical SVCs.

Descriptive and typological studies indicate other types of asymmetrical serialization. Aspect or modal serialization, valence-increasing or valence decreasing serialization, comparative serialization, and complementation serialization are totally absent in Emerillon. These functions are usually assumed by the rich verbal morphology or by the large paradigm of second position clitics.

3. The origin of Emerillon serial verbs: a marked dependant construction

I propose that Emerillon serial verbs descend from a marked dependent verb form, called gerundive in the Brazilian tradition of Tupi-Guarani linguistics.

After a presentation of the Tupi-Guarani gerundive in 3.1, it will be characterized in terms of clause linkage in 3.2. Then, it will be posited as a source for the Emerillon SVCs in 3.3. Three arguments will be given in favor of this hypothesis from 3.4 to 3.6. Meanwhile, the Emerillon residual gerundive construction will be introduced.

3.1. The Proto-Tupi-Guarani gerundive

Example (65) is a reconstruction of a Proto-Tupi-Guarani gerundive construction:

Proto-Tupi-Guarani (Jensen 1998)

(65) † *a-có* *wi-poracéj-ta*

1SG.I-go 1SG.III-dance-GER

I went to dance.

The main characteristics of the Tupi-Guarani gerundive construction are stated by Jensen (1990: 124-125) and reformulated below:

i) it expresses simultaneous action, purpose or sequential action

ii) the subject of the gerundive is co-referential with the subject of the main verb

iii) the two verbs express aspects of the same action

iv) the gerundive takes a suffix (*-ábo* ~ *-ta* ~ *-a* after a vowel, a diphthong and a consonant, respectively). To this list of suffixes, Rodrigues (1953) adds the loss of a stem final /r/.

v) the person indexation pattern on the gerundive is characteristic of dependent clauses.

The person indexing system specific to dependent clauses applies in most Tupi-Guarani languages to temporal/conditional subordinate clauses, nominalizations, oblique-topicalized constructions[6] and gerundives. It differs from the hierarchical indexation

[6] In these constructions, an adverbial (adverb or postpositional phrase) is fronted to the initial position, and the verb, though the main predicate of an independent clause, is marked as dependent (Jensen 1990: 125).

system found in independent clauses. In independent clauses, transitive verbs are marked with a single index, taken from either the subject index set (Set I) or the object index set (Set II), the alternative depending on person and semantic hierarchies (for a detailed description, see for example (Jensen 1990). The subject of intransitive predicates is indexed with Set I on one class of intransitive predicates, and with Set II on the other. In contrast, the indexation system of dependent clauses is of the 'absolutive' type: the index is always a Set II index (the set used only for objects and some S on independent verbs). On dependent verbs, it refers either to the subject of all intransitive predicates or to the object of transitive verbs, as would an absolutive index in an absolutive/ergative language. The subject of transitive verbs is never referenced on the verb, so there is no 'ergative' marking. As a consequence, this system is called 'absolutive'. Moreover, a subject coreferential to the main verb subject is marked with an index of the coreferential set (Set III) on intransitive gerundive predicates in all languages and on subordinate verbs in some languages (Jensen 1998). Table 1 summarizes the two different indexation systems[7].

Table 1

Tupi-Guarani gerundives, being typical dependent constructions, conform to the corresponding indexation pattern. In line with the absolutive system, a transitive gerundive is indexed for its object with a Set II marker, as in (66). When immediately preceded by the object as a full noun, as in (67), the verb does not need any person

[7] For the sake of simplicity, the combination where a first person subject interacts with a second person object has not been taken into account.

marker (depending on their lexical identity, some verbs then take a relational marker). This latter structure, restricted to dependent verbs, would be ungrammatical on main verbs.

Tupinambá (Jensen 1990: 124, my gloss)

(66) *o-úr* ***i-****kuáp-a*

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

He came to meet him.

(67) *o-úr* *[kunumí* *kuáp-a]*

3.I-come boy meet-GER

He came to meet the boy.

An intransitive gerundive, having necessarily a subject co-referential with the main subject, must be indexed for its subject with a Set III (co-referential set) marker.

Kamaiurá (Seki 2000: 130, my gloss)

(68) *a-jot* ***we-****maraka-m.*

1SG.I-come 1SG.**III**-sing-GER

I came to sing.

The gerundive construction can be compared to a nominal phrase. First, the Tupi-Guarani indexation pattern found on the gerundive (and shared by all dependent clauses, including nominalized clauses) is comparable to person marking on nouns in those

languages[8] : Set II is used on nouns to express a possessor, while Set III is normally found on nouns only for a 3rd person possessor coreferent with the subject. The following Emerillon examples illustrate the use of Set II (*i-* for a 3rd person non coreferential with the subject in (69)) and Set III (*o-* for a 3rd person coreferential with the subject in (70)) in Tupi-Guarani languages.

(69) *o-ikɨʤ pureru-kom-a-wi* ***i-****mebɨr* *Ø-eraho* *kiʔi.*

3.I-take toad-PL-REF-ABL **3.II-**son 3.II-carry then

Then he took their$_i$ child from the toads$_i$ and carried it away.

(70) *o-ikɨʤ* ***o-****iba* ***o-****poʔã-pope.*

3.I-take **3.III-**pet **3.III-**hand-in

He takes his (own) pet in his (own) hand.

Second, the structure illustrated in (67) where a full NP object replaces the object index is comparable to the genitive construction of those languages. Compare the gerund (in brackets) in (67) and the genitive structure in (71). The object precedes the verb, like the possessor NP precedes the possessee. The presence of a referential suffix and /or a relational marker obeys to the same rules in both structures.

(71) *Sisu-kija*

Sisu-hammock

Sisu's hammock

[8] I am not claiming here that Set II is nominal morphology, since it is also found to index the object on transitive verbs and S on one class of intransitive predicates (which analysis as verbs or nouns is the core of a debate among Tupi-Guaranists, cf. Meira 2006, Rose 2008). Yet it is quite clear that the gerundive construction is parallel to the structure of nominal phrases, and in particular, the specific distribution and function of Set II and Set III on gerundives is exactly the same as on nouns, and this with whatever class of predicates.

Third, the special negative morpheme † *e'ým* used on gerundives (and other dependent forms) is also used on nouns, and differs from the one used on independent predicates (cf. *d-…-i* in (19)).

Guajá (Magalhães 2007: 286)

(72) *a-jú xía mukurí Ø-'ú-**ý**=ma.*

1-come here bacuri RELN-eat-NEG=GER

I came here without eating bacuri.

Kayabí (Jensen 1998: 546)

(73) *a'eramu te-yar-**e'em**-a-mu*

therefore 1SG-boat-NEG-REF-?

Then I was without a boat.

To summarize the Tupi-Guarani gerundive, let us underline what distinguishes this form of the verb: its suffix, its dependent indexing pattern and its dependent negation.

3.2. Characterization of PTG gerundive in terms of clause linkage

This same Tupi-Guarani construction is given different names by different authors: gerundive (Rodrigues 1953), auxiliary verb (Harrison 1986, Kakumasu 1986, Seki 2000), double-verb construction (Dooley 1991, cited in Jensen 1998), serial verb (Jensen 1990, Velázquez-Castillo 2004), and non-initiating verb... Jensen argues against the use of the English word 'gerundive', although it may be appropriate in Portuguese (corresponding to the English 'present participle') (Jensen 1999:157). I argue against the use of 'serial verb' for this construction, for the absence of any subordination marker is a

universally accepted criterion for serialization. The Proto-Tupi-Guarani gerundive is marked as a dependent construction in that first, an overt morpheme is attached to the verb form, and second, it uses a non-finite form of the verb, with markers for agreement and negation that are distinct from those used on simple main clause verbs. In line with Croft's terminology, it is clearly a *deranked* construction (Croft 2001: 354). This should logically prevent us from calling it a 'serial verb'.

Jensen's choice of this term is nevertheless interesting. It suggests that the Tupi-Guarani gerundive has a function comparable to serialization. From a cross-linguistic perspective, this construction may be best described as a converb. 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 do display the adverbial function and some formal characteristics of converbs: although they are marked for persons unlike converbs in many languages, they are less finite than main verb forms.

Let's now characterize the PTG gerundive in terms of clause linkage :

i. hierarchical downgrading of the subordinate clause (parataxis ↔ embedding):

The PTG gerundive is somewhat downgraded, filling an (optional) adverbial function in the main clause.

ii. main clause syntactic level of the subordinate clause (sentence ↔ word)

It is part of the main clause, but not of the VP.

iii. desententialization of the subordinate clause (sententiality ↔ nominality)

The gerundive is a nominalized construction, quite strongly desententialized.

iv. grammaticalization of the main verb (independent predicate ↔ grammatical operator)

There is no hint of grammaticalization of the main verb.

v. interlacing of the two clauses (clauses disjunct ↔ clauses overlapping)

Interlacing of the predicates is strong, with a constraint on subject coreferentiality. However, polarity is independent.

vi. explicitness of the linking (syndesis ↔ asyndesis)

Explicitness of linking is maximal, with a dedicated suffix.

On the whole, PTG gerundives is a rather compressed construction, morphologically reduced in a nominal expression and tightly linked to the main clause (S coreferentiality). However, it shows a counterbalancing tendency towards autonomy and isolation, being linked to the main clause at a high syntactic level, with an explicit dependency suffix.

3.3. PTG gerundive as a historical source for Emerillon SVCs

PTG gerundive has been reconstructed for Proto-Tupi-Guarani, due to the fact that it is found as such in most of the Tupi-Guarani languages and left some traces in the other languages, that underwent a general change of indexation within dependent clauses (Jensen 1990). No true serialization construction has ever been postulated at the family level. I now argue that the PTG gerundive is the diachronic source of the Emerillon serial verb construction presented in Section 2. Table 2 compares the two constructions.

Table2

The major diachronic changes that will be observed in more detail in the following sections are the shift in indexation pattern (3.4) and the loss of suffixes (3.5).

3.4. Argument 1: A general shift in dependent indexation pattern

To complete the picture of such a possible derivation from the Tupi-Guarani gerundive construction to Emerillon serial verb constructions, we turn first to the shift of indexation pattern. Jensen (1990) has described the change from dependent marking to independent marking on V2 for five Tupi-Guarani languages (Chiriguano, Kaiwa, Mbya Guaraní, Wayampi, Urubu). In these languages the coreferential prefixes on intransitive V2 have been replaced by prefixes from Set I and the gerundive suffix has been deleted[9]. Emerillon must have undergone the same change. Compare the new system in the Emerillon sentence (75) to the system still in use in Kamaiura gerundives (74).

Kamaiura (Seki 2000, my gloss)

(74) *a-jot* ***we-****maraka-m.*

1SG.I-come **1SG.III-**sing-GER

I came to sing.

Emerillon

(75) *a-ho* ***a-****zaug*

1SG.I-go **1SG.I-**bathe

I went bathing.

[9] Duarte shows how Tembé has undergone the same modification of the indexation system (concerning intransitive verbs only). However, this language did maintain a gerundive suffix (Duarte 2002).

The second important change concerns transitive V2. Jensen (1990) notes that the obligatory marking of the object on V2 was lost in some Tupi-Guarani languages. A transitive V2 is marked for A or P according to person and semantic hierarchies, which again is the case for Emerillon. Compare the use of a Set I prefix on V2 in the Emerillon sentence (77) to the use of a Set II prefix on V2 in the Tapirape example (76).

Tapirape (Leite 1987, cited in Jensen 1999: 157)

(76) *wyrãʔi* *ara-pyyk* ***i-****xokã-wo* ***i-****ʔo-wo*

bird 1EXCL.I-catch **3.II-**kill-GER **3.II-**eat-GER

We caught the bird, killed it and ate it.

Emerillon

(77) *o-kuaɾ* *dzandupa* ***o-****kɨɾɨg*

3.I-find genipa **3.I-**grate

She found genipa and grated it.

This shift in indexation system is general to most dependent constructions of Emerillon. Compare the following reconstruction of a temporal subordinate clause with subject coreferentiality (78) to its counterpart in Emerillon (79), where subject coreferentiality is not explicitly indexed.

proto-tupi-guarani, Jensen 1998b, p.16

(78) *† [e-có-rVmV]* *ere-'ár*

2SG.III-go-SUB 2SG.I-fall

When I left, I fell.

(79) *o-ɨnuŋ-ba-nam,* *o-pukuʤ.*

3.I-put-COMPL-SUB 3.I-stir

When she finished to put all of them (in the pot), she stirred.

To sum up these changes, Emerillon (like some other Tupi-Guarani languages) lost the absolutive and coreferential marking on V2, and normalized it by analogy to independent verbs. Along with the loss of the gerundive suffix, to be examined in Section 3.5, this gave rise to a construction involving two verbs marked as independent without any subordinating marker, i.e. a serial verb construction.

While the absolutive indexation pattern used on Tupi-Guarani gerundives is otherwise found on nominal phrases (as has been shown in Section 3.1), the indexation pattern used on the Emerillon non-initial predicates[10] of a series is clearly verbal. 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 posit that the shift of indexation pattern under study is just the opposite process, starting from a marked dependent verb akin to nominalization, and leading to a verb form more comparable to an independent verb. However, the verb form has not been completely 'sententialized', in that it can not display autonomous TMA and negation.

3.5. Argument 2: The loss of a final consonant

The loss of the gerundive suffixes is obviously hard to prove. However, a good argument for my present hypothesis is that Emerillon serial verbs display a special

[10] In this position, no predicate of the class using Set II to index S has been found.

characteristic that seems anomalous in the synchronic system. Verb roots ending with a final *ɾ* (like *ʔaɾ* 'fall' illustrated in (80)) will undergo deletion of this final consonant when used as the final verb of the series, as in (81).

(80) *aman* *o-**ʔar***. non-serial

rain 3.I-fall

The rain is falling.

(81) *o-wiɾ* *o-**ʔa*** *wɨɾa-wi.* serial

3.I-fall 3.I-fall tree-from

He is falling from the tree.

This deletion can be a consequence of neither phonological nor morphophonemics rules. A plausible explanation for this otherwise aberrant peculiarity can be found in diachronic information. Rodrigues (1953: 130) gives for Tupinamba, a conservative but extinct Tupi-Guarani language, a description of the gerundive forms. As in the reconstruction given above in 3.1, the gerundive displays a dependent indexation pattern and special endings. Among these endings are the suffixes *–abo* and *–a*, as well as the loss of a final consonant *–r*.

Tupinamba (Rodrigues 1953: 130)

(82) *potár*

to want

(83) *potá*

wanting

This last point is a solid argument in favor of reconstructing the origin of Emerillon serial verb constructions in the Tupi-Guarani gerundive construction. The final verb of the serial verb construction would have derived from the gerundive, after losing the gerundive suffix (*-abo ~ -ta ~ -a*). The gerundive marker consisting in final /*r*/ deletion would nevertheless have been conserved, i.e. the final consonant would not have been re-established on final serial verbs. As a consequence, residual marking of subordination remains in the loss of the final *–r*.

In Lehmann's typology of clause linkage (Lehmann 1989), the loss of the gerundive suffix is a factor of compression : the *explicitness of linking* is lost, creating an asyndetic construction.

3.6. Argument 3: An uncompleted shift

In the former two sections, it has been shown how the SVC emerged out of the gerundive construction in Emerillon: by substituting its special indexation system with the same system as used with the main verbs in independent clauses and by losing the special gerundive suffixes. The present section will give one additional argument for this hypothesis, by pointing out that this evolution has been in some cases completed to give the existing SVCs, and in other cases uncompleted to leave some residual occurrences of gerundives in Emerillon. The present stage in this evolution explains the different restrictions relating to argument structure and valency of the verbs that apply to SVCs and gerundives in present-day Emerillon.

3.6.1. Emerillon gerundives

The evolution presented above was in some cases only partially completed. Just as for the serial verbs, some gerundives lost their subordinating markers, except for the absence of a final *ɾ*. However, their systematic object marking with Set II indexes remained intact. As a result, these residual gerundives are verbs occurring in clause final position, using a specific indexation system, but receiving no particular affix encoding dependency. Otherwise, they do share the same subject and object and the same TMA and negation (carried by the first verb only), just like serial verbs.

(84) *sɨrɨʤ* *o-ɨkɨʤ* *o-wɨ* ***Ø-eraho*** gerundive

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

He took his mother and carried her.

(85) *d-o-ɨkɨʤ-i* *o-wɨ* ***Ø-eraho*** gerundive

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

He did not take his mother and carry her.

(86) *o-ɨkɨʤ-taɾ* *o-wɨ* ***Ø-eraho*** gerundive

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

He will take his mother and carry her.

The main difference from serial verbs is that the gerundive verb systematically takes an object marker (Set II): *i-* or zero, according to the verbal stem (on lexical grounds, cf. Table 3 below). Thus, in example (87), the main verb *ɨnuŋ* is marked for the

first person subject with Set I (*a*-), and the gerundive *mõdo* for the third person object with Set II (*i*-). However, the two verbs still share the same first person subject (the town mayor speaking) and the same third person object (the houses).

(87) *logements sociaux-kom* *a-iɲuŋ-okaɾ* ***i-mõdo****-ɾ-ehe* gerundive

housing.project-PL 1SG.I-put-CAUS 3.II-make.go-RELN-because

because I had many, many houses built (lit. because I had put housing and made it go)

Just like in the Tupinamba example (67), when the object is expressed by a full noun and directly precedes the gerundive verb stem (minus its final consonant when it is *ɾ*), the verb may not take any person marker, as illustrated in (88). Once again, this structure is particular to gerundives and is never attested with independent or other subordinated verbs (89).

(88) *o-ho-taɾ* *pureru-ɾ-**eka*** gerundive

3.I-go-FUT toad-RELN-search

He goes and looks for the toad.

(89) *o-**ekaɾ*** *o-iba.* non-serial

3.I-search 3.III-pet

He is looking for his pet.

However, the distribution of this last structure is not as regular in Emerillon as it is in other Tupi-Guarani languages. In those languages, when a full object nominal phrase precedes the gerundive, this normally results in both the absence of an object

index on the verb, and the presence of a relational marker on the verb (this latter rule only for some verbs, including *ekaɾ* as in (88), on lexical grounds). This is not systematic in Emerillon. On the one hand, some examples show the unexpected co-occurrence of both an object nominal phrase in front of the verb and the object marker on the gerundive (see also (84) to (86)).

(90) *e-zoɾ* *t-eɾe-poʔo* *amõ* ***i-wa****!* gerundive

2SG.IMP-come PURP-2SG.I-pick other 3.II-eat

Come and pick some to eat!

It seems that the compact construction exemplified in (88) is preferred when the initial verb is intransitive, while the one with an overt object marker on the verb is used more often with a transitive initial verb. The object can then be inserted between the two verbs as in (90), or located at any margin of the whole sequence construction, before the verbs as in (87) and after them as in the example below.

(91) *nan* *o-baʔe-pa* ***i-mõdo*** *siparа.* gerundive

thus 3.I-make-COMPL 3.II-make.go metal

He thus finished to make his weapon (by stretching out a piece of metal).

On the other hand, other Emerillon examples displaying an object nominal phrase in front of the verb lack the relational marker (expected on some verbs, like *ezaɾ* (93)).

(92) *a-eɾahoɾaho* *waita* *Ø-eza.* gerundive

1SG.I-RED.carry basket.sp 3.II-leave

I carried several baskets (on the back) successively. (Lit: I carried baskets and left them).

(93) *e-ɾ-ezar.* non-serial

1SG.II-RELN-leave

He left me.

On the semantic level, gerundives seem to convey meanings like temporal sequence, manner and motion.

(94) *o-weraho* *ʔi-b* ***i-mõbo*** sequential

3.I-carry water–in 3.II-throw

She carries it and throws it in the water.

(95) *imani* *mun-a-kom* *o-weta* *beku* ***Ø-eru-ŋ*** sequential

many people-REF-PL 3.I-cut creeper 3.II-bring-PL

Many people cut the creeper and brought it back (to the village).

(96) *o-zoka* *bokal* ***Ø-itʃig*** manner

3.I-break jar 3.II-drop

He broke the jar by dropping it.

(97) *e-k^{w}a* *beku-ɾ-**eta*** motion

2SG.IMP-go creeper-RELN-cut

Go cut the creeper.

3.6.2. Why is valency a factor for the distribution of gerundives and serial verb constructions?

Now a crucial question is : if serial verbs and gerundives emerged from the same diachronic source, how did they diverge to co-exist? A striking fact is that serial verbs and gerundives in Emerillon seem to differ in their argument structure. While SVCs may consist of any combination of verbs with respect to their valency, gerundives are more restricted: all the examples involve a transitive gerundive, and only a few display an intransitive verb in the initial position. Let us now focus on valency to investigate whether it can account for the maintenance of the gerundive construction in parallel to the emergent serial verb construction.

In Emerillon, gerundives are strictly transitive.

(98) *akɨkɨ* *o-zika* ***Ø-eru***. gerundive

howling.monkey 3.I-kill 3.II-take.back

He comes back from hunting with a howling monkey. (Lit. He killed a howling monkey and took it back.)

I formulate the hypothesis that the shift in indexation pattern applied first on intransitive gerundives. The replacement of coreferential Set III markers with subject Set I markers created serial verb constructions. This shift did not concern transitive gerundives, which conserved their absolutive marking up to present-day Emerillon. This hypothesis is consistent with Jensen's assertion regarding dependent constructions in Tupi-Guarani languages : the shift in dependency marking affected intransitive verbs

before transitive verbs (Jensen 1990). In line with this hypothesis, verb sequences whose final verb is intransitive would be expected to form a serial verb construction, while sequences of verbs whose final verb is transitive would be expected to form a gerundive construction. This is not the case.

On the one hand, as shown earlier in 2.2., some SVCs include a final transitive verb. One crucial feature of SVCs with a final transitive verb is that they do not undergo deletion of their final consonant if it is /ɾ/ as illustrated in (99). This suggests that SVCs with a final transitive verb do not directly derive diachronically from the gerundive construction (otherwise final /ɾ/ deletion – the only residual gerundive marking - would be expected to be maintained as elsewhere). On the contrary, that would imply that the serial verb construction originating in intransitive gerundives was later extended to allow final transitive verbs.

(99) *o-ho* *o-iba* *o-eka**ɾ**-oŋ.* serial
3.I-go 3.III-pet 3.I-search-PL.S
They went to look for their pet.

Let us note that within SVCs with a final transitive verb, those with an initial intransitive verb are far more frequent.

On the other hand, gerundives are always transitive, but their combination with an initial intransitive verb is rare[11]. An example is given below (see also (88) and (97)).

(100) *kõʔem* *oɾo-ho-taɾ* ***Ø-esag*** *t-oɾo-wɨkɨpoʤ.* gerundive
tomorrow 1EXCL.I-go-FUT 3.II-see PURP-1EXCL.I-fish
Tomorrow we'll go and see about fishing.

[11] All examples seem to belong to the 'motion' type.

The valency of the initial verb thus seems to play a role in the use of one construction or the other. An argument for this hypothesis is the following: the transitivity of the initial verb of a series entails the transitivity of its final verb, that then takes a gerundive form. This is probably so in order for the verbs of a sequence to keep sharing the same subject. This can be observed both in the choice of the lexical item and form of the final verb (intransitive *ʔa vs* transitive *itʔɨg*, serial verb *vs* gerundive in (101)), or in the causative derivation and gerundivization of the final verb following the causativization of the initial verb (compare (102) and (103)).

(101) *d-o-wiɾ-i* *o-ʔa,* *o-poʔo-te* ***Ø-itʔig****-oŋ.* serial + gerundive

NEG-3.I-break.away-NEG 3.I-fall 3.I-pick-FOC 3.II-drop-PL.S

It did not fall by itself, someone picked it and let it fall.

(102) *menẹɲõ* *o-popoɾ* *o-kʷa-ɲ* serial

Emerillon 3.I-scatter 3.I-pass-CONT

The Emerillon people scattered and went away.

(103) *o-bo-popoɾ* *meɾẹɲõ-kom* ***Ø-eɾo-kʷa*** gerundive

3.I-CAUS-scatter Emerillon-PL 3.II-CAUS.SOC-pass

He scattered the Emerillon people away (Lit. and made them go away)

What stands out from this is that first, a verb sequence may entail valency concord, and second, when both verbs of a sequence are transitivized, the gerundive is preferred over the serial verb construction. In fact, eight out of the fifteen verbs found as

gerundives are always in a transitivized form (cf. Table 3 below). These verbs contain either the causative prefix *mo-* (and then the person marker is *i-*) or the sociative causative *ero-* (and then third person is marked with *Ø-*). The proportion of transitivized independent verbs in discourse is much lower[12]. It could be that the causative marker helped retain the absolutive marking on gerundives. This seems to have been the case in Guarani, a Tupi-Guarani language where the 'traditional' gerundive pattern is retained for transitively derived verbs only (Jensen 1990: 141).

Table 3

Another hypothesis, compatible with the preceding one, is that the third person object prefix *i- ~ Ø-* blocked the evolution of gerundives into serial verb constructions[13]. In fact, when the final verb of a sequence has a first or a second person object, it could logically be ambiguously analyzed as cases of either serial verb constructions or gerundives, since in both hierarchical and absolutive systems (i.e. independent or dependent indexation system), a speech act participant object is marked on the verb with a Set II prefix. Moreover, some elicited examples[14] seem to suggest that the person index on gerundives is now frozen. A first person object can be marked with third person object prefix *i- ~ Ø-* on a gerundive.

[12] In a randomly selected text sample, out of the first 15 different main transitive predicate, only one stem had been transitivized.

[13] Moreover, out of the fifteen verbs found as gerundives in my corpus (cf. Table 3), eleven are of the lexical class of verbs normally taking the relational morphology. Perhaps this could have helped retain the construction.

[14] Unfortunately, the small amount of examples in my spontaneous corpus does not contain any obvious illustration of a gerundive with a first or second person object.

(104) *e-ɾ-eruɾ* ***Ø-eza***. gerundive

1SG.II-RELN-take.back 3.II-leave

He took me back and left me.

(105) *e-nupã* *e-peteg* ***Ø-itʃig***. gerundive

1SG.II-hit 1SG.II-push 3.II-drop

He hit me and pushed me on the ground.

If third person *i-* is really used with any object on a gerundive, then this means it has grammaticalized from a person marker to a subordinator. This would mean the gerundive construction is still explicitly marked as dependent. Whatever the acceptability of these elicited examples, Jensen specifies that among the Tupi-Guarani languages that underwent a loss of dependency marking on the final verb of a sequence, three of them also retain frozen forms of the gerundive, all of which are marked with *i-* (third person object), regardless of the person of the arguments (Jensen 1990)[15]. The following Guarani gerundive shows an *i-*, even though the object is first person.

Guarani (Jensen 1990 : 142)

(106) *xe-mondyi-ve* ***i-****mondovy*

1SG.II-scare-much 3.II-send

He scared me so much that he made me go away.

[15] Slavic languages also show a third person coreferential marker that took over all persons marking in a coreferential context (Creissels p.c.).

This would mean that the Emerillon gerundive construction, besides being a residue of a non-completed evolution into serial verb constructions, is somewhat frozen. Other facts do support this assertion. First, while serialization is frequent and productive, gerundives 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 verbal forms were found (cf. Table 3). Furthermore, it is noteworthy that several of the verbs occurring as gerundives never occur as independent verbs. Comparison with other Tupi-Guarani languages ensures that they are verbs. For example, the verbs *esag* 'see' or *wa* 'eat' are found in Emerillon only as gerundives (107). In main clauses, they are replaced by the verbs *maʔẽ* (108) and *ʔu*. Beside, *esag* could be a case of lexicalization into an idiomatic expression with the meaning 'for a try'.[16]

(107) *kõʔem* *oro-ho-tar* ***Ø-esag*** *t-oro-wɨkɨpoʤ* gerundive

tomorrow 1EXCL.I-go-FUT 3.II-**see** PURP-1EXCL.I-fish

Tomorrow we will go and see about fishing/ we will go and try fishing.

(108) *ka-r-ehe-ãhã* *o-**maʔẽ**.* independent verb

[16] One example with *esag* is ambiguous, both for its meaning ('to see' vs. 'for a try') and for argument sharing. The anteater has been playing with his own eyes, sending them out of their sockets. The jaguar, amazed by the trick, asks the anteater to try it with his own eyes. The subject of *esag* should probably be understood as the jaguar ('for me to see'), in which case this sentence constitutes a case of switch-subject construction.

taʔe *e-mõdo-we-na* *iʤe-r-ea* *Ø-esag*

let's.see 2SG.IMP-make.go-too-INJ PRO1SG-RELN-eye 3.II-see

Now, send my own eyes to see/for a try.

wasp-RELN-POST-only 3.I-**see**.

And he only saw the wasps.

Some grammaticalization processes may be at work. In example (110), *mõdo* (CAUS.go 'send' (109)) undergoes a semantic bleaching in the gerundive construction: it indicates that the action will be continuing, and not the causation of a movement. The houses will not be send away, but the building process will last.

(109) *wate-kotɨ* *o-mõdo* independent verb

above-towards 3.I-send

He is sending it in the air.

(110) *logements sociaux-kom* *a-ɨɲuŋ-okaɾ* ***i-mõdo****-ɾ-ehe* gerundive

housing.project-PL 1SG.I-put-CAUS 3.II-make.go-RELN-because

because I had many and many houses built (Lit. because I had put housing and made it go)

The gerundive *aha* can even be said to have been grammaticalized as a postposition with the meaning 'looking for'. It is never found as an independent verb and in addition, it always requires an object. As a result, it is preceded by either a Set II prefix or a full noun, just like any other postposition. Its position in the sentence is also not that of a gerundive, but that of an oblique constituent.

(111) *wiɾ* *o-apaɾ-a-ɾ-**aha*** *o-nan* *o-ho* *ta-b.*

fast 3.III-weapon-REF-RELN-for 3.I-run 3.I-go place-in

He runs fast to the village to get his weapon.

The low frequency of gerundives, the low number of items used as such and their frozen nature tend to confirm that gerundives are an older construction than the highly frequent, productive and transparent serial verb constructions.

To summarize the hypothetic scenario of emergence of a serial verb construction in Emerillon, it probably emerged when intransitive gerundives had lost their suffixes and replaced their co-referential indexation pattern with Set I markers, in analogy to independent verbs. Transitive gerundives with first and second person markers were already indexed just like independent verbs. Transitive gerundives with third person markers still resist this evolution. However, the existence of SVCs with a final transitive verb implies that, at some point, the serial structure (with each verb having a form comparable to that of an independent verb) extended its scope to sequences with a final transitive verb. This last structure has not completely replaced the gerundives, probably because they were somewhat frozen already. On the contrary, the absence of any lexicalization or grammaticalization process further affecting Emerillon serial verb construction is most likely to be explained by their being recent. This final section gave evidence for the origin of the Emerillon SVCs in the Tupi-Guarani gerundive construction, thus implying a shift in clause linkage type.

Conclusion : from converbs to SVCs, a shift in clause linkage type

The study of Emerillon serial verb and gerundive constructions constitutes a telling illustration of a diachronic shift from complex clauses (the gerundive construction in Proto-Tupi-Guarani, a type of converb) to a complex predicate involving verbs

looking superficially like independent verbs (the Emerillon serial verbs). The condensation process, as Givón calls it (Givón 2006), has been caught at an intermediate stage, offering diachronic evidence for the origin of serial verb constructions in former gerundives. This enables us to compare converbs and SVCs on the morphological, syntactic and functional levels.

The emergence of a serial verb construction in Emerillon is due to combined changes in morphology, along two clause linkage parameters : the apparent 'sententialization' process explained in Section 3.4. and the loss of explicitness of linking shown in 3.5. On the whole, Emerillon has undergone a major shift in the Deranking Hierarchy as defined by Croft (2001). While the Proto-Tupi-Guarani gerundive construction was obviously deranked, the Emerillon serial verb construction does not display any special agreement or negation marker any more, nor a special linking morpheme attached to it. However, the process of 're-ranking' is not total, since the verb form is still not compatible with TMA and negation markers as independent verbs are.

These morphological changes did not trigger a significant change of the dependent construction towards greater autonomy, because heavy syntactic changes counterbalanced this tendency towards elaboration, so that on the whole the SVCs tend toward the other extreme of the clause linkage continuum : compression. This is so because the emerging construction shifted towards higher compression on most of the other parameters of clause linkage, as illustrated in Table 4 below.

Table 4

Table 4 shows that the parameters of hierarchical downgrading, syntactic level, interlacing and explicitness of linking situate the serial verb construction higher than

gerundives on the scale towards compression, counterbalancing the partial 're-sententialization' process. The parameter of grammaticalization does not really show any significant difference between Emerillon SVCs and Proto-Tupi-Guarani gerundives. In the end, the greater formal (morphological) integration of gerundives is compensated for by the greater syntactic compression of SVCs. This seems to be the way dependency is maintained in the change from complex clauses to complex predicates.

In a way, these facts constitute an illustration in a particular language of the questioned fact that the difference between serial verb constructions and converbs (gerundives, here) would basically be the presence or absence of a specific dependent morphology. Emerillon historical development supports this point rather well, since the two constructions are functionally equivalent. The shift in dependency marking in Emerillon did not modify the nature of the semantic dependency between the final verb and the initial one. The evolution from gerundive to SVC described in detail in this paper seems to be above all a morphological change so that on the whole, as far as the Emerillon data is concerned, I do agree with Shibatani on his point that the difference between SVCs and converbs is only apparent, i.e. morphological (Shibatani 2009). This leads me to suggest that, since the change in dependency marking is general in the language, it is not obvious that, as DeLancey puts it, the functional change led rather than followed the grammatical change (DeLancey 1991). In the case of Emerillon, it can be claimed that the formal change (general to all dependent constructions), rather than a functional change, was the trigger for the emergence of serial verb constructions.

The historical development of Emerillon serial verb constructions also gives new insight on the question whether the existence of SVCs in a language can be attributed to some of its typological characteristics (the so-called serialization parameters). A point made by Bisang is how vital for the development of converbs out of SVCs is the potential for asymmetry in finiteness (Bisang 1995). Regrettably, the role of (a)symmetry in the development of serial verb constructions is not discussed in that paper. The Emerillon data forces us to consider this question, in a new perspective, i.e. the development of gerundives into serial verb constructions rather than the opposite evolution. It could be said that when Emerillon got rid of a distinct indexation system for dependent clauses, and thus turned its former gerundives into serial constructions, it participated in a strong tendency towards analogy and symmetry, away from non-finite nominalized subordinate clauses. The language lost a possible differentiation between dependent and independent verbs in terms of person indexation, more precisely in the system of indexation, not on its obligatoriness. In the end, the final serial verb became formally more comparable to the initial verb of the series, and more generally to independent verbs. The morphological symmetry is strong in that person indexation is formally marked in the same manner on the whole series of verbs, and TMA and negation can not be marked independently with special morphology. The Emerillon data does not directly confirm the idea that asymmetry is necessary for the development of converbs, but does indirectly reinforce it by showing that the development of serial verb constructions out of converbs is parallel to some loss of potential morphological asymmetry.

In conclusion, I will defend that the specific characteristics of the Emerillon verb series can basically be explained by their diachronic source. Their development out of a

converb construction can be explained via morphological re-ranking balanced by greater syntactic integration, suggesting that the basic difference between converbs and SVCs is formal rather than functional. Of course, keeping in mind Durie's characterization of verb serialization as a "diverse phenomena, appearing in a variety of morpho-synatctic guises" (Durie 1996: 320), I do not pretend that the hypothesis presented in this paper applies to all types of verb serialization in all serializing languages. Rather, the Emerillon data pointing in a quite obvious way to a specific and unusual diachronic source, it simply allowed us to re-think the relation between serialization and types of morphologically-marked dependency, i.e. subordination and more specifically converbs.

To consider the questions addressed in this paper in a broader perspective, a deeper understanding of the origins of SVCs and their similarity to converbs is in need of more descriptions and more discussions of diachronic syntax. This is especially true for the Amazonian area, where SVCs are indeed scarcely described. It is not mentioned as an areal characteristic in the synthetic studies of (Derbyshire 1987, Derbyshire and Pullum 1986, Dixon and Aikhenvald 1999, Payne 1990) that rather put the emphasis on the use of nominalizations to form dependent clauses. However, some work show those constructions to be present in the area (see for example Aikhenvald 1999, and in Tupi-Guarani languages specifically Velázquez-Castillo 2004, Vieira 2002). Hopefully the time will come when the quantity and quality of synchronic descriptions make more detailed historical investigations of syntax possible.

Abbreviations

†	reconstruction

*	ungrammatical
3.II	Set II third person index
CAUS	causative
CAUS.SOC	sociative causative
COMPL	completive aspect
CONJ	conjunction
CONT	continuous
DEF	definite article
DEM	demonstrative
EXCL	exclusive
FOC	focus
FUT	future
GER	gerundive
IDEO	ideophone
IMP	imperative
INCL	inclusive
INDET	indeterminate
INJ	injunctive
ITER	iterative
NEG	negation
NF	non-final
NOMN	nominalization
OBTOP	oblique topicalization

PERF	perfect
PL	plural
PL.S	plural of subject
POST	postposition
PRO	pronoun
PTG	Proto-Tupi-Guarani
PURP	purposive
RED	reduplication
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, agent of transitive verb, patient of transitive verb
SG	singular
SUB	subordination
SVC	serial verb construction
TMA	tense, mood, aspect
TRANSL	translative

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Person index sets	Independent verb form	Dependent verb form (OBTOP, SUB, GER, NOMN)
Set I	A, Sa	---
Set II	P, Sp	P, S (Absolutive)
Set III	---	Coreferential S

Table 1: Indexation systems in Proto-Tupi-Guarani

	Tupi-Guarani gerundive	diachronic changes	Emerillon SVC
subject coreferentiality	yes		yes
same polarity	no		yes
meanings	simultaneous action purpose sequential action		direction motion sequential
subordinating markers	*-abo ~ -ta ~ -a* final /r/ deletion	loss of suffixes	no suffixes stem final /ɾ/ deletion
indexation pattern	absolutive and coreferential (dependent)	shift in indexation pattern	hierarchical (independent)

Table 2: Comparison between the Tupi-Guarani gerundive and the Emerillon SVC

wa	eat		*i-* / no RELN
mõ-boɾ	throw	CAUS-jump	*i-* / no RELN
mõ-do	send	CAUS-go	*i-* / no RELN
mo-ze-mim	hide	CAUS-REFL-hide	*i-* / no RELN
itʃɨg	drop		Ø- / RELN
esag	see		Ø- / RELN
eta	eat		Ø- / RELN
ekaɾ	search		Ø- / RELN
aha	for, look for		Ø- / RELN
ezaɾ	leave, put down		Ø- / RELN
mimuɲ	cook		Ø- / RELN
eɾ-aho	carry	CAUS.COM-go	Ø- / RELN
eɾo-kwa	pass	CAUS.COM-pass	Ø- / RELN
eɾo-wawag	wander	CAUS.COM-wander	Ø- / RELN
iɾ-uɾ	bring	CAUS.COM-come	Ø- / RELN

Table 3 : Emerillon types of gerundives in the corpus

	autonomy <---> integration
downgrading of sub. clause	→
syntactic level	→
desententialization	←
grammaticalization	=
interlacing	→
explicitness of linking	→

Table 4 : Change of position on the clause linkage continuum from PTG gerundives to Emerillon SVCs