

Département des Sciences du Langage  
Faculté des Lettres, Sciences du Langage et Arts  
Université Lumière Lyon 2

Volume II

CURRICULUM VITAE

et

TRAVAUX PUBLIES

présenté en vue de l'obtention de

**l'Habilitation à Diriger des Recherches**

**Françoise Rose**

Chargée de recherche de 1ère Classe, DDL (CNRS/Université Lyon2)  
sous la direction de Colette Grinevald, Professeur à l'Université Lyon II

**Jury**

Denis Creissels  
Colette Grinevald  
Pieter Muysken  
Francesc Queixalós  
Fernando Zúñiga

*Université Lumière Lyon 2 (président du jury, rapporteur)*  
*Université Lumière Lyon 2*  
*Radboud University Nijmegen (rapporteur)*  
*CNRS – SEDYL/CELIA (rapporteur)*  
*University of Zurich*



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*University of Zurich*



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### Sélection de travaux publiés

#### *Présentation typologique de l'émerillon*

- PUBLI 1.** Rose, F., 2008, A typological overview of Emerillon, a Tupi-Guarani language from French Guiana, *Linguistic typology*, 12(3), pp. 431–460. "37

#### *Sur la reduplication*

- PUBLI 2.** Rose, F., 2005, "Reduplication in Tupi-Guarani languages: going into opposite directions", in *Studies on Reduplication*, Hurch B. (ed.), Mouton de Gruyter (Empirical Approaches to Language Typology), 351-368. "65
- PUBLI 3.** Rose, F., accepté en 2010, "When vowel deletion blurs reduplication in Mojeño Trinitario", in *Reduplication in South-American languages*, G. Goodwin Gómez and H. van der Voort (eds). 57

#### *Sur l'indexation des personnes*

- PUBLI 4.** Rose, F., 2009, "A hierarchical indexation system: the example of Emerillon (Teko)", in *New Challenges in Typology*, P. Epps and A. Arkhipov (eds), Mouton de Gruyter, Berlin, pp. 63-83. 79
- PUBLI 5.** Rose, F., 2011, "Who is the third person? Fluid transitivity in Mojeño Trinitario", in *Argument-encoding systems in Bolivian Amazonian languages*, Guillaume, A. et Rose, F. (eds), *International Journal of American Linguistics* (Numéro spécial). 101

#### *Sur les questions diachroniques*

- PUBLI 6.** Rose, F., 2007, "As particularidades da língua Emerillon entre as línguas Tupí-Guaraní: O caso da marcação de pessoa", in *Línguas e Culturas Tupí*, Vol. I, A. Rodrigues and A. S. Cabral (eds), Curt Nimuendajú, Campinas. 325-332. 143
- PUBLI 7.** Rose, F., 2009, The origin of serialization. The case of Emerillon, *Studies in Language*, Vol. 33:3, pp. 644-684. 161

- PUBLI 8.** Rose, F., soumis, "A shift in dependency-marking away from non-finiteness. From Proto-Tupi-Guarani to Emérillon", in ms, 37p. 203
- PUBLI 9.** Rose, F., 2006, "Le syncrétisme adpositions/subordonnants. Proposition de typologie syntaxique", in *Faits de Langues* 28: Coordination et subordination : typologie et modélisation, pp. 205-216. 241
- PUBLI 10.** Rose, F., 2009, "The polyfunctionality and development of the Trinitario general subordinator *te*", Séminaire du PICS Complexité syntaxique et diversité typologique, Université de Sonora à Hermosillo, 12 novembre 2009. 255

## Curriculum vitae détaillé

### Françoise ROSE

7 avenue du Vercors  
26 600 Tain l'Hermitage  
tel : 04-69-24-60-32  
e-mail: [francoise.rose@univ-lyon2.fr](mailto:francoise.rose@univ-lyon2.fr)  
page web : <http://www.ddl.ish-lyon.cnrs.fr/Rose>  
nationalité française, née le 02/06/1976

### Laboratoire Dynamique du Langage (CNRS, UMR 5596)

Institut des Sciences de l'Homme  
14 avenue Berthelot  
69363 Lyon Cedex 07  
tel: 04-72-72-64-63  
fax: 04-72-72-65-90

## PARCOURS

### PARCOURS PROFESSIONNEL

- |                                 |   |
|---------------------------------|---|
| Octobre 2008-...                | <b>CR1</b> au CNRS, rattachée au Laboratoire Dynamique du Langage, Lyon                       |
| Janvier 2008-septembre 2008-... | <b>CR2</b> au CNRS, rattachée au Laboratoire Dynamique du Langage, Lyon                       |
| Octobre 2004-décembre 2007      | <b>CR2 au CNRS</b> , rattachée au Centre d'Etudes des Langues Indigènes d'Amérique, Villejuif |

### FORMATION à l'Université Lyon 2

- 2000-2003 **Doctorat en Sciences du Langage** (Laboratoire Dynamique Du Langage, Allocataire-moniteur et ATER) – mention Très Honorable avec Félicitations  
*Morphosyntaxe de l'émérillon. Langue tupi-guarani de Guyane française.*  
Soutenance : à Lyon, le 9 décembre 2003.  
Jury : C. Grinevald, Professeur à l'Université Lyon 2 (directeur de thèse); D. Creissels, Professeur à l'Université Lyon 2 ; M. Mithun, Professeur à l'Université de Californie à Santa Barbara ; F. Queixalós, Directeur de Recherches au CELIA (CNRS-IRD).  
Rapporteurs : B. Comrie, Professeur et Directeur du Département de Linguistique, MPI-EVA Leipzig ; F. Queixalós, Directeur de Recherches au CELIA (CNRS-IRD).
- 1999-2000 **D.E.A. de Sciences du Langage** – mention TB  
*Éléments de phonétique, phonologie, et morphophonologie de l'émérillon (teko) - première approche d'une langue amérindienne non décrite*, sous la direction de D. Creissels
- 1998-1999 **Maîtrise de Sciences du Langage** – mention TB  
*La relativisation en turc*, sous la direction de D. Creissels

- 1997-1998 **Licence de Sciences du Langage** – mention B
- 1995-1997 **Lettres Supérieures et Première Supérieure** au Lycée Edouard Herriot à Lyon. Sous-admissible au concours de l'ENS Sèvres-Ulm

## **DISTINCTION**

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Prix du Jeune Chercheur de la Ville de Lyon (Humanités et Sciences Humaines), 2004.

## **ACTIVITES SCIENTIFIQUES**

### **RESPONSABILITES SCIENTIFIQUES**

---

- Co-organisatrice de l'**Atelier Morphosyntaxe** du DDL (2008-...).
- Co-responsable du **programme Saillance** du CELIA (2006-2007).
- Organisatrice des **RDV du CELIA** (2006-2007)

### **PARTICIPATION A DES PROGRAMMES SCIENTIFIQUES**

---

#### ***INTERNES AUX LABORATOIRES***

- Equipe *Description, Typologie et Variation* du DDL (2008-...)
- Axe *Langues En Danger – Terrain Description Revitalisation* (LED-TDR) du DDL (2010-...)
- Projet *Afrique Amérique Latine Langues En Danger* (AALLED), coord. C. Grinevald et L. Van Der Veen. Projet ANR (2007-2009)
- *Groupe d'étude sur les langues d'Amérique Latine* du DDL (2006)
- Programme *Syntaxe des Langues d'Amazonie* du laboratoire CELIA (2001-2005).
- Séminaire *Description, Catégorisation et Typologie* du DDL, coord. D. Creissels et C. Grinevald (2000-2004).

#### ***INTER-LABORATOIRES ou INTERNATIONAUX***

- *Développement d'outils informatiques pour la revitalisation des langues en danger du sud-ouest colombien*, coord. L. Besacier (Laboratoire d'Informatique de Grenoble, CNRS/Université Joseph Fourier) et T. Rojas-Curieux (Universidad del Cauca). Programme ECOS-Nord (2011-...)



- *Amazonie II – Origine et dynamique du peuplement amérindien et Noir Marron de la Guyane française*, coord. J-M. Dugoujon, laboratoire d'Anthropobiologie de Toulouse. Financement CNRS (2009-...)
- *Complexité syntaxique et diversité typologique*, coord. par C. Chamoreau (CNRS) et Z. Estrada Fernández (Universidad de Sonora, Mexique). Programme International de Coopération Scientifique (PICS) (2009-2011)
- *Fédération de Typologie*
  - *Dépendances distributives : pluralité nominale et verbale*. Resp. P. Cabredo Hofherr et B. Laca. (2006-2009)
  - *Typologie des relations et des marqueurs de dépendance interpropositionnels*. Resp. I. Bril. (2002-2006)
  - *Prédicats complexes – Constructions verbales en série*. Resp. B. Oyarçabal et W. Paul. (2002-2005)
  - *Vers une typologie des parties du discours mineures: onomatopées, idéophones, interjections*. Resp. E. Oréal et J-L. Chevillard. (2002-2005)

## ORGANISATION D'EVENEMENTS SCIENTIFIQUES

---

- Co-organisatrice (avec D. Creissels et A. Guillaume) de la conférence internationale **Syntax of the World's Languages 4**, Lyon, 23-26 septembre 2010.
- Co-organisatrice (avec L. Michael et F. Seifart) de la session **Lenguas arawak: estrategias de aumento de valencia** au Colloque International *Amazónicas III: Fonología y sintaxis*, Université Nationale de Colombie à Bogotá, 19-24 avril 2010.
- Co-organisatrice d'un colloque international (avec A. Guillaume) **Argument coding systems in Bolivian Lowland Languages**, Villejuif, 5 au 7 avril 2007.

## MOBILITE

### SEJOURS INTERNATIONAUX

---

- Formatrice à la *3L International Summer School on Language Documentation and Description*, à **SOAS, Londres** (juin-juillet 2009)
- Visiting Scholar au **Research Center for Linguistic Typology (RCLT)** de LaTrobe University, à Melbourne, Australie (janvier-mars 2007).
- Visiting Scholar au Département de Linguistique de **l'Université de Californie à Santa Barbara** (bourse EURODOC et LSA, été 2001 et hiver 2003).
- Participation au **Linguistic Summer Institute du LSA** (juin-août 2001).
- Séjour de deux semaines au **Laboratório de Línguas Indígenas**, Universidade de Brasília (bourse Aires Culturelles, février 2002).

## TERRAINS

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- **Guyane française** (Camopi, Elaé, Cayenne – langue émérillon) : juillet-août 1999, octobre-novembre 2000, mars-mai 2002, octobre-novembre 2004  
Stagiaire au Laboratoire des Sciences Sociales de *l'Institut de Recherche pour le Développement* de Guyane.
- **Bolivie** (Trinidad et San Lorenzo, Beni – langue mojeño trinitario) : septembre-octobre 2005, août-octobre 2006, avril-juillet 2008, juin-août 2010

## ADMINISTRATION DE LA RECHERCHE

### RESPONSABILITES ADMINISTRATIVES

---

- Membre élu du **Groupe d'experts** de la section 7 de l'Université Lumière Lyon 2 (2009-...)
- Représentante des chercheurs du DDL auprès de la **Fédération de Typologie** (2008-...)
- Suppléante à la **Commission de Spécialistes** de la 7ème section, Université de Provence, Aix-Marseille I (2007-2008)
- Membre du **conseil de laboratoire** du CELIA (2006-2007)

### JURYS

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- Master 2 de P. Sans: *Esquisse phonologique du bésiro (chiquitano). Langue en danger des basses terres de Bolivie* (Université Lumière Lyon 2, département de Sciences du Langage), 15 juin 2010.
- Master 1 d'A. Raymond: *Particularités phonétiques, Graphie traditionnelle, Formes et usages des ponoms personnels en arpitan (francoprovençal) des Monts du Lyonnais* (Université Lumière Lyon 2, département de Sciences du Langage), 10 juin 2010.
- Master 2 de M. Ndeko: *Apprentissage de la prononciation du français (langue seconde) par des élèves coréens : difficultés et éléments de remédiation* (Université Lumière Lyon 2, département de Sciences du Langage), 22 juillet 2009.
- Master 2 de F. Copin: *Nom et verbe en guarani. Langue tupi-guarani du Paraguay* (Université Paris 7, département de Sciences du Langage), 30 mai 2006.

### MEMBRE DE COMITES DE LECTURE/D'ÉVALUATION

---

- Co-éditrice de la revue *Native American Languages and Linguistics* (NAmLaLi), Akademie Verlag (Berlin).

- Comité de lecture pour l'ouvrage collectif *Reduplication in indigenous languages of South America*, Goodwin Gómez G. & van der Voort H. (eds). (2010)
- Comité de lecture pour l'*International Journal of American Linguistics* (2008 ; 2010)
- Comité de lecture pour *Cross-linguistic tendencies in Contact-induced change. A typological approach based on morphosyntactic studies*, Leglise I. & Chamoreau C. (eds) (2009)
- Comité de lecture pour la publication de *Etudes/Inuit/Studies 30:1*, Mahieu M.-A. & Tersis N. (2008)
- Evaluation des résumés pour Workshop *Language contact and morphosyntactic variation and change*, Leglise I. & Chamoreau C. (org), Paris, 20-21 septembre 2007
- Comité de lecture pour la publication des actes du *CerLiCO* (2007)
- Comité de lecture pour la revue *Amerindia* (2006)
- Evaluation de projet pour la *National Science Foundation* (U.S.A), 2006

## FORMATION D'ETUDIANTS

### ENSEIGNEMENT

---

- 2010 Conférence *Le mojeño trinitario. Présentation de la langue et du travail de terrain; Exercices sur le syntagme nominal* (2h.) en cours de Morphosyntaxe et Typologie, niveau L3, Département de Sciences du Langage, **Université de Grenoble Stendhal 3**, 2 novembre.
- 2010 Atelier spécial de *Linguistique du Mojeño* (15h), Formation en linguistique pour instituteurs indigènes bilingues des basses terres de Bolivie, **Université Autonome Gabriel René Moreno de Santa Cruz de la Sierra**, Bolivie, 12 au 14 juillet (Trinidad).
- 2009 Conférence *Description d'une langue d'Amazonie (le Mojeño Trinitario)* (2h.) dans un enseignement d'Initiation à la Linguistique, niveau L1, Département de Sciences du Langage, **Université de Grenoble Stendhal 3** à Valence. 24 novembre.
- 2009 Cours *Amazonian languages* (6h). *3L International Summer School on Language Documentation and Description*, **School of Oriental and African Studies**, Londres (29 juin-2 juillet)
- 2008 Atelier spécial de Linguistique du Mojeño (9h), Formation en linguistique pour instituteurs indigènes bilingues des basses terres de Bolivie, **Université Autonome Gabriel René Moreno de Santa Cruz de la Sierra**, Bolivie, 22 et 24 juillet (San Borja).
- 2006 Assistante de K. Haude, Séminaire de Linguistique Descriptive, **Université Mayor San Simon, Cochabamba** (Bolivie), 18-23 septembre.
- 2003-2004** **A.T.E.R.** au Département des Sciences du Langage, Université Lyon 2  
*Linguistique générale : Syntaxe* (2<sup>ème</sup> année, semestre 4) 18h, 2 groupes  
*Phonétique et phonologie du français* (3<sup>ème</sup> année, semestre 6) 28h, 2 groupes

	<i>Sociolinguistique du français</i> (2 <sup>ème</sup> année, semestre 4)	42h, 2 groupes
	<i>Informatique et Sciences du Langage</i> (2 <sup>ème</sup> année de MISASHS)	12h, 2 groupes
<b>2000-2003</b>	<b>Monitrice</b> au Département des Sciences du Langage, Université Lyon 2	
2002-2003	<i>Linguistique générale: Introduction à la linguistique générale et aux langues du monde, phonétique, phonologie</i> (1 <sup>ère</sup> année, semestre 1)	72h, 4 groupes
2001-2002	<i>Linguistique générale: Introduction à la linguistique générale et aux langues du monde, phonétique, phonologie</i> (1 <sup>ère</sup> année, semestre 1)	54h, 3 groupes
2000-2001	<i>Linguistique générale: morphologie et syntaxe</i> (1 <sup>ère</sup> année, sem. 2)	54h, 3 groupes

## **ENCADREMENT D'ETUDIANTS (Université Lyon 2)**

---

### **DOCTORAT**

2010-2013 P. Sans *Grammaire du bésiro*

### **MASTER**

2010-2011 N. Gasparini *Expression de la catégorie du nombre dans les langues Tupi-Guarani*, Master 1

2010-2011 A. Raymond *Morphologie géographie non-verbale de l'arpitan/francoprovençal*, Master 2. Co-encadrement avec M. Bert.

2009-2010 A. Raymond *Particularités phonétiques, Graphie traditionnelle, Formes et usages des pronoms personnels en arpitan (francoprovençal) des Monts du Lyonnais*, Master 1. Co-encadrement avec M. Bert.

2009-2010 P. Sans *Esquisse phonologique du bésiro (chiquitano). Langue en danger des basses terres de Bolivie*, Master 2. Co-encadrement avec A. Guillaume.

2008-2009 P. Sans *Eléments de sociolinguistique du bésiro (chiquitano). Approche bibliographique. Approche de terrain*, Master 1. Co-encadrement avec A. Guillaume.

## Liste des productions, organisée par type

### OUVRAGES

ROSE, F., 2011, *Grammaire de l'émerillon (teko). Langue tupi-guarani de Guyane française*. Louvain : Peeters (Langues et Sociétés d'Amérique traditionnelle).

### OUVRAGES ÉDITÉS

GUILLAUME, A. et ROSE, F. (eds), 2011, "Argument-encoding systems in Bolivian Amazonian languages", Numéro spécial de la revue *International Journal of American Linguistics*.

### CHAPITRES D'OUVRAGES

ROSE, F., soumis en 2010, Irrealis and negation in Mojeño Trinitario, in *Negation in Arawak languages*, L. Michael and T. Granadillo (eds).

ROSE, F., soumis en 2010, When vowel deletion blurs reduplication in Mojeño Trinitario, in *Reduplication in South-American languages*, G. Goodwin Gómez and H. van der Voort (eds).

ROSE, F., accepté, "Mojeño Trinitario", in *Lenguas de Bolivia*, M. Crevels and P. Muysken (eds), Plural Editores.

GUILLAUME, A et ROSE F., 2010, "Sociative causative markers in South-American languages: a possible areal feature", in *Essais de typologie et de linguistique générale, Mélanges offerts à Denis Creissels*, F. Floricic (ed), Lyon, ENS Editions.

ROSE, F., 2009, "A hierarchical indexation system: the example of Emerillon (Teko)", in *New Challenges in Typology*, P. Epps and A. Arkhipov (eds), Mouton de Gruyter, Berlin, pp. 63-83.

ROSE, F. et RENAULT-LESCURE, O., 2008, "Contact-induced changes in Amerindian Languages of French Guiana", in *Aspects of language contact. New Theoretical, Methodological and Empirical Findings with Special Focus on Romancisation Processes*, T. Stolz, R. Salas Palomo and D. Bakker (eds), Mouton de Gruyter, pp. 349-376

ROSE F., 2007, "As particularidades da língua Emerillon entre as línguas Tupí-Guaraní: O caso da marcação de pessoa", in *Línguas e Culturas Tupí*, Vol. I, A. Rodrigues and A. S. Cabral (eds), Curt Nimuendajú, Campinas, pp. 325-332.

ROSE F., 2005, "Reduplication in Tupi-Guarani languages: going into opposite directions", in *Studies on Reduplication*, Hurch B. (ed.), Mouton de Gruyter (Empirical Approaches to Language Typology), 351-368.

## ARTICLES DANS DES REVUES À COMITÉ DE LECTURE

- GUILLAUME, A. et ROSE, F., à paraître, "Introduction to argument-encoding systems in Bolivian Amazonian languages", in *Argument-encoding systems in Bolivian Amazonian languages*, GUILLAUME, A. et ROSE, F. (eds), International Journal of American Linguistics (Numéro spécial)
- ROSE, F., à paraître, "Who is the third person ? Fluid transitivity in Mojeño Trinitario", in *Argument-encoding systems in Bolivian Amazonian languages*, GUILLAUME, A. et ROSE, F. (eds), International Journal of American Linguistics (Numéro spécial).
- ROSE F., soumis en septembre 2008, Dialectes en danger : évaluation de la variation dialectale auprès des derniers locuteurs, *Faits de langues*, Numéro Spécial Locuteurs de Langues en danger.
- ROSE F., 2009, The origin of serialization. The case of Emerillon, *Studies in Language*, Vol. 33:3, pp. 644-684.
- ROSE F., 2008, A typological overview of Emerillon, a Tupi-Guarani language from French Guiana, *Linguistic typology*, 12(3), pp. 431-460.
- ROSE F., 2008, "L'incorporation nominale en émerillon : une approche lexicale et discursive", in *Amerindia*, Vol. 31, pp. 87-112.
- ROSE F., 2007, "Action répétitive et action répétée : aspect et pluralité verbale dans la reduplication en émerillon", in *Faits de Langues*, Vol. 29: La reduplication, pp. 125-143.
- GORDON M. et ROSE F., 2006, "Emerillon stress: a phonetic and phonological study", in *Anthropological Linguistics*, Vol. 48:2, pp. 132-168.
- ROSE F., 2006, "Le syncrétisme adpositions/subordonnants. Proposition de typologie syntaxique", in *Faits de Langues* Vol. 28:Coordination et subordination : typologie et modélisation, pp. 205-216.
- ROSE, F., 2003, "Le marquage des personnes en émerillon (tupi-guarani) : un système d'accord hiérarchique", in *Faits de Langues*, Vol. 21, n° 2 "Mésio-Amérique, Caraïbe, Amazonie", pp. 107-120.
- ROSE F., 2002, "Le problème de la nasalité dans l'inventaire phonologique de l'émerillon" in *Amérindia*, 26/27 "Langues de Guyane", pp.147-172.

## ACTES DE COLLOQUES

- ROSE F., 2005, *L'origine des constructions verbales en série de l'émerillon*.  
<http://www.typologie.cnrs.fr/fr/gabarits/TUL%20Rose.pdf>
- ROSE F., 2002, "Cross-referencing in Emerillon (Tupi-Guarani): a hierarchical agreement system" in *Santa Barbara Papers in Linguistics n°11, Proceedings from the fourth Workshop on American Indigenous Languages, July 6-8 2001*, pp.71-84.

ROSE F., 2002, "My hammock = I have a hammock. Possessed nouns constituting possessive clauses in Emérillon (Tupi-Guarani)" in *Línguas Indígenas Brasileiras. Fonologia, Gramática e História. Atas do I Encontro Internacional do GTLI da ANPOLL*, Vol. 1, A. Rodrigues and A. Cabral (eds), CNPQ & Universidade federal do Para, Belem, Brésil, pp. 392-402.

#### **CONFERENCES comme INVITEE**

ROSE, F., *Borrowing of a Cariban number marker into some Tupi-Guarani languages*, Morphologies in Contact, Bremen, 1er octobre 2009.

ROSE, F., *Profil typologique de l'émérillon, une langue tupi-guarani de Guyane française*, Société de Linguistique de Paris, 15 mars 2008

LESCURE O. et ROSE F., *Language contact between Amerindian Languages, French and Creoles in French Guiana*, Romanisation world-wide: The impact of French, Italian, Portuguese, and Spanish on the autochthonous languages of Africa, the Americas, Asia and Austronesia (with special focus on Hispanicisation), Bremen, 6 mai 2005.

#### **SEMINAIRE comme INVITEE**

ROSE, F., 2010, *Diversity and variation: distribution of typologically diverse dependent constructions in Mojeño Trinitario*, Séminaire du PICS Complexité syntaxique et diversité typologique, Université de Sonora à Hermosillo (Mexique), 15-16 novembre 2010.

ROSE, F., *The polyfunctionality and development of the Trinitario general subordinator te*, Séminaire du PICS Complexité syntaxique et diversité typologique, Université de Sonora à Hermosillo (Mexique), 12 novembre 2009.

#### **COMMUNICATIONS A UN COLLOQUE**

ROSE, F., *Transitividad fluida y polifuncionalidad de un marcador de causativo en Mojeño Trinitario*, A Estrutura de Línguas Amazônicas: Fonologia e Gramática III, session spéciale Augmentation de valence dans les langues arawak, Bogota, 21 avril 2010.

ROSE, F., 2010, *Going to search, searching while going, and searching before leaving. A first draft on Associated Motion in Mojeño Trinitario (Arawak, Bolivia)*, Verbal markers of motion and/or direction in the Amazonian languages of the Guaporé-Mamoré region (and beyond), DDL-ISH, Lyon, 10 mars 2010.

ROSE, F., *Irrealis and negation in Mojeño Trinitario, a South Arawak language*, SSILA Winter Meeting, Baltimore, 8 janvier 2010.

ROSE, F., *From nominalization to finite subordination – historical change in the coding of dependency in a Tupi-Guarani language*, A Estrutura de Línguas Amazônicas: Fonologia e Gramática II, Recife, 24 novembre 2008.

- ROSE, F., *The word-prosodic system of Mojeño Trinitario and pervasive vowel deletion*, A Estrutura de Línguas Amazônicas: Fonologia e Gramática II, Recife, 27 novembre 2008.
- ROSE, F., *A shift in dependency-marking: from Proto-Tupi-Guarani to Eméillon (away from non-finiteness)*, Syntax of the World's Languages, Berlin, 25 septembre 2008.
- GUILLAUME A. & ROSE F., *A typology of sociative causative: between causatives and applicatives*, ALT 7, Paris, 28 septembre 2007.
- ADAMOU L., DUNHAM M., ROBERT S., ROSE F. & VANHOVE M., *Exploring Prosodic Parameters for a Typology of Conditional and Temporal Clauses*, ALT 7, Paris, 27 septembre 2007.
- ROSE F. et VANHOVE M., *Discours rapporté direct et prosodie en émérillon et en bedja*, Colloque CerLiCO Grammaire et Prosodie, Nantes, 2 juin 2007.
- ROSE F., *Agreement in Mojeño Trinitario: specifying or not who the 3<sup>rd</sup> person is*, Argument Coding Systems in Bolivian Lowland Languages, Paris, 5 avril 2007.
- ROSE F. et GUILLAUME A., *'Sociative causative' markers in South-American languages: a possible areal feature*, SSILA Annual Meeting, Anaheim, 6 janvier 2007.
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## Language Profile

**A typological overview of Emerillon,  
a Tupí-Guaraní language from French Guiana**

FRANÇOISE ROSE

*Abstract*

*This article offers a typological overview of the Emerillon language, a Tupí-Guaraní language spoken by a small community in French Guiana. General information is provided on various aspects of the grammar, within the domains of phonology, morphology, and syntax. Special attention is given to a few features of the language that are rather rare and/or poorly discussed in the typological literature, namely morphemic nasal harmony, a hierarchical person indexation system, a rare type of nominal predication, and the existence of a specific marker for sociative causation. These features are all typical of the Tupí-Guaraní family.*

*Keywords:* alignment, Amazonia, causative, cross-reference, Emerillon, nasal harmony, nominal predication, person hierarchy, Tupí-Guaraní, valency

**1. Introduction**

The Emerillon community consists of about 400 people living in two areas in French Guiana: next to the Maroni river (on the border with Suriname) in the western part and at the Oyapock-Camopi confluence (on the border with Brazil) in the eastern part. The community (auto-denominated Teko) is the result of the aggregation of surviving members of different small ethnic groups, mainly of Tupí-Guaraní origin (Navet 1994). The Emerillon language is still actively being used and passed on to children as a native language. Even though it is in close contact with several languages – essentially Wayampí and Brazilian Portuguese in the eastern part, Wayana and Eastern Maroon Creoles in the western part, French Guiana Creole and French, the language used in school, in both areas – the influence of European and Creole languages on Emerillon is

very limited and concerns mainly the lexicon (Rose & Renault-Lescure 2008). It must, nevertheless, be considered endangered.

Emerillon belongs to the Tupí-Guaraní family (consisting of over forty languages) of the Tupí stock (Rodrigues 1984–1985). The name Tupí-Guaraní stems from Tupinambá, the now extinct language spoken along the coast in the early colonization times, and Guaraní, which made it through the centuries to become one of the official languages of Paraguay, spoken by around five million people. This group is probably the best studied one in Amazonia, with a long tradition of linguistic investigation since Anchieta (1595). Nevertheless, only few recent and comprehensive grammars like Seki's Kamaiurá grammar (Seki 2000) are available. However, comparative study within the family (Jensen 1998) is facilitated since "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). These languages are indeed spoken throughout Brazil, in northern Argentina, Paraguay, Bolivia, and French Guyana. Internal classification of the Tupí-Guaraní family was established by Rodrigues on lexical and phonological grounds (Rodrigues 1984–1985) and then revised (Rodrigues & Cabral 2002). Emerillon belongs to subgroup VIII,<sup>1</sup> along Urubu-Ka'apor, Anambé de Ehrenreich, Guajá, Awré e Awrá, Takunhapé, and its closest relatives Wayampí, Wayampípukú, and Jo'é. Other classifications do not differ much as far as Emerillon is concerned (Dietrich 1990, Mello 2002).

The Emerillon language had been very little described before (Couchili et al. 2002, Maurel 1998, Queixalós 2001b). My own work (Rose 2003b, to appear) is based on texts and elicited items collected by myself in the field from various speakers, mainly from the eastern part, between 1999 and 2004.

This article aims at providing an overview of the typological characteristics of the language. I will try to stick to a synchronic description of the language within a typological perspective, referring when necessary to typological stud-

1. The eight subgroups are constituted as follows (Rodrigues & Cabral 2002):

- I: Old Guaraní; Kaiwá, Nandeva, Paraguayan Guaraní; Mbyá-Guaraní; Xetá; Tapiete, Chiriguano, Izoceño; Guayakí
- II: Guarayo/Guarayú; Siriono, Horá; Yuki
- III: Tupí, Língua Geral Paulista; Língua Geral Amazônica, Tupinambá
- IV: Tapirapé; Asuriní do Tocantins, Parakanã; Suruí; Avá-Canoeiro; Tembé, Guajajára, Turiwára
- V: Araweté, Ararandewára-Amanajé, Anambé do Cairari; Asuriní do Xingu
- VI: Kayabí, Apiaká; Parintintín, Tupí-Kawahíb; Juma
- VII: Kamayurá
- VIII: Wayampí of French Guiana, Wayampípukú, EMERILLON, Jo'é; Urubu-Ka'apor, Anambé de Ehrenreich; Guajá; Awré e Awrá; Takoapé

ies, but leaving aside diachronic hypotheses and comparative remarks.<sup>2</sup> The major points developed here are quite representative of the whole Tupí-Guaraní family.

The Emerillon phonological system is presented in Section 2, with a special focus on nasal harmony. Section 3 will describe Emerillon verbal morphology, namely a very interesting indexation system based on both person and semantic role hierarchies. Section 4 will then go on with clause syntax issues such as word order, different classes of predicates, and alignment. Finally, Section 5 will give an overview of valency-changing derivations, with special emphasis on the sociative causative. For each typologically remarkable feature of Emerillon, I will also discuss how they fit in with the existing typology.

## 2. Phonology

### 2.1. Phoneme inventory

The inventory of consonants and vowels is given in Tables 1 and 2. In cases of allophony, phonetic realizations are specified in brackets using the IPA notation. The system is in several ways quite typical of Amazonian phonology (Aikhenvald 1996, Dixon & Aikhenvald 1999), for example as having one liquid, two glides, the closed central vowel. It is “richer” than the average systems of Amazonian languages, displaying a voice distinction within stops, and the *o/u* distinction. Like the rest of the system, /k<sup>w</sup>/ and /ʔ/ are found throughout the Tupí-Guaraní family.

The various cases of allophony are conditioned by different factors:

- (i) dialectal variation: /s/ and /z/<sup>3</sup> can be phonetically realized as either fricatives [s] and [z] or affricates [ts] and [dz];
- (ii) the vocalic environment: [h] ~ [ɣ], [w] ~ [β];
- (iii) the syllabic structure: mid vowels tend to be more open in closed syllables;
- (iv) the position within the morpheme/word/prosodic phrase domain: in morpheme-final position before a prosodic break, the non-continuants are unreleased [p̚], [t̚], [tʃ̚], and [k̚]. In absence of release, voicing is irrelevant.

2. Emerillon offers some features that are interesting in a diachronic perspective, like the general restructuring of dependent clauses, with a shift in the indexation system, the emergence of serial verb constructions out of dependent constructions, and the replacement of ancient nominalization patterns by subordinators syncretic with adpositions (Rose 2006). It also raises many comparative or areal issues, like the descriptive word category, the so-called relational marker, the question of polyfunctionality or omnipredicativity (see, for example, Queixalós 2001a, b) that concern a great number of languages in the Amazonian area.

3. Even though /s/ and /z/ have to be considered distinct phonemes, it is noteworthy that /s/ is most often found before high vowels and /z/ essentially before mid or low vowels. /z/ and /dz/ are both reflexes of proto-Tupí-Guaraní ʃj. Emerillon /j/ probably emerged as a transition.



Prenasalization is systematic morpheme-internally (2a) and optional morpheme-initially when preceded by a vowel within the word domain (2b).<sup>5</sup>

(2)	a.	/sibo/ [sĩmbo] rope 'rope'	b.	/o-bo-ʔi/ [oboʔi ~ omboʔi] 3.I-CAUS-small 'he cuts it into pieces'
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- (v) nasal harmony: in our analysis, nasality is not always contrastive at the segmental level (hence the absence of nasal consonants in the inventory), but is a feature spreading over morphemes, typically roots, nasalizing them totally or partially. This phenomenon will be described in greater depth in Section 2.4.

## 2.2. Syllabic and word structure

Attested syllabic structures are quite simple: CV (by far the most frequent), V, CVC, and VC. Vowel sequences are common, each vowel being the nucleus of a separate syllable. Closed syllables are only found in morpheme-final position.

The canonical pattern of an Emerillon word is a sequence of open syllables, possibly with a final closed syllable: (C)V... (C)V.(C)V(C). A major role of morphophonemics is to prevent the creation of consonant sequences within a word, at morpheme boundaries.

In word-initial position, all consonants but /g/, /j/, and /t/ are found. In word-internal position, all consonants are found (though /g/ is restricted to morpheme-final position). In word-final position, only non-continuants are found and are either unreleased, therefore neutralizing the opposition between voiced and unvoiced, or nasal (see Section 2.4).

## 2.3. Stress

The domain of stress is the prosodic phrase. Primary stress (ˈ) usually falls on the penultimate syllable of the phrase. Secondary stress (˘) alternates on every second syllable counting backward from the primary stress: *pānanàrupì omàʔènè nōdèrehéo* '(when we are) on the sea, he still sees us'. Optional stress can also be found on the initial syllable of the phrase. Besides, stress is attracted by heavy syllables, and is often avoided on high vowels in onsetless syllables. The major acoustic correlates of stress are duration and intensity (Gordon & Rose 2006). Comparative Tupí-Guaraní studies on stress, based on a small number of impressionistic descriptions, traditionally reconstruct a delimitative

5. This general rule is yet subject to inter- and intra-speaker variation. Morpheme-finally, the voiceless continuants that are voiced when followed by a vowel within the prosodic phrase domain are never prenasalized.

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stress on the final syllable, although Wayampí, Siriono, and Chiriguano are presented as historical deviations due to their penultimate stress patterns (Dietrich 1990: 16–17, Jensen 1999: 133).

#### 2.4. *Nasal harmony*

In this section, I will show that nasality is a feature that spreads within morphemes and to adjacent morphemes, forming a type of nasal harmony that is not very common typologically.

2.4.1. *Nasals as allophonic variants of voiced consonants.* Three features of the language point to the fact that nasal consonants are allophones of their oral voiced corresponding sounds.

First, voiced consonants and nasal consonants are in complementary distribution, based on the oral vs. nasal environment of the segment concerned. No minimal pair can be found where the nasality of just one segment would be the distinctive feature: [baʔe] ‘thing’ vs. [mãʔẽ] ‘REL’; [owa] ‘face’ vs. [õwã] ‘a little’; [paku] ‘fish species’ vs. [pëkü] ‘bird species’.

Second, some affixes have two surface forms, characterized by absence vs. presence of nasality. In each case, the selection of one or the other form is determined by the presence vs. absence of nasality of the root to which they are affixed. Example (3) illustrates this phenomenon for the negation suffix [ɕi] ~ [ɲĩ].

- (3) a. [d-a-ɕapiaka-ɕi]  
 NEG-1SG.I-think-NEG  
 ‘I don’t think so.’  
 b. [d-o-mãñõ-ɲĩ]  
 NEG-3.I-die-NEG  
 ‘He didn’t die.’

Third, the integration of loan words originally including some nasal segments shows either nasalization (Guianese Creole [dipẽ] becomes [ɲĩpẽ] ‘bread’ in Emerillon) or denasalization (Wayana [malija] becomes [baliɕja] ‘knife’ in Emerillon).

These three characteristics of Emerillon indicate an allophonic distribution between oral voiced and nasal segments in nasal contexts. Crosslinguistically, languages where nasal consonants are not distinctive are rare. Very often, this is explained by nasal consonants being allophones of oral consonants in nasal contexts, as found especially in West African and South American languages (Clements & Osu 2005). The next section focuses on the precise distribution of these allophones in Emerillon.



2.4.2. *The distribution of nasality within lexical roots.* Nasality in Emerillon affects strings of segments. Some lexical roots are completely affected by nasality, and their final segment is necessarily nasal, e.g., [ãmã] ‘rain’, [wãĩwĩ] ‘woman’, [ãhã] ‘tooth’, [nãsiʔõ] ‘mosquito’, [tãkã] ‘river’. A smaller number of roots are disharmonic. They are affected by nasality only partially, more specifically to the left of a consonant [mb] or [nd], e.g., [nĩmbo] ‘rope’, [mĩndĩdũ] ‘cotton’, [kãndetat] ‘crown’, [tãmbe] ‘flat’.<sup>6</sup> No trace of nasality can be found to the right of that segment.

The nasal string can yet contain voiceless elements, both in totally ([nãsiʔõ], [tãkã]) and partially ([kãndetat], [tãmbe]) nasal roots, but absolutely all voiced segments within this string are nasal.

2.4.3. *Analysis.* My analysis is that nasality is lexically assigned in Emerillon, and some nasal harmony is going on, within the strict domain of the morpheme. Section 2.4.4 will discuss the propagation of nasality to adjacent morphemes. Within the scope of nasality, all voiced segments (apart from /z/)<sup>7</sup> are realized nasally. Voiceless phonemes are transparent to nasalization, but not opaque: they cannot be nasalized but yet do not block the spreading.

In the analysis of nasal harmony, once the domain of nasalization is delimited and the segments are classified as underspecified for nasality, transparent, and/or opaque, the major challenge is to define the trigger and the direction of spreading, as Walker recognizes for Tuyuca: “because nasality spreads to all nasalizable segments in a nasal morpheme, it is impossible to unambiguously pinpoint the segment from which spreading originates” (Walker 2003).

My hypothesis is that nasality in Emerillon is to be analyzed as a feature spreading leftward from the final segment of a root (the nasal allomorphs of /b/, /d/, /dʒ/ or /g/) or from its rightmost [mb] and [nd]. A first piece of evidence is the distribution of nasal elements within roots. There is always only one span of nasality per root. In roots totally affected by nasality, the final segment is always a nasalizable element, which is therefore realized as a nasal vowel or consonant, while their initial segment is not necessarily nasalizable (see [tãkã], [kãndetat], and [tãmbe] from Section 2.4.2). There is absolutely no morpheme totally affected by nasalization ending with a non-nasal element. In roots partially affected by nasality, no /b/ or /d/ phonemes can be found to the right of the prenasalized element.

6. In some occurrences of such words, especially in frequent words, when the vowel immediately preceding this consonant is strongly nasalized, the nasal part of the consonant is not realized.

7. In my corpus, there are six roots affected by nasality within which /z/ (realized [dz]) is found. However, three of them are loan words, and the three remaining ones may be considered as part of the Amazonian substrate: [madziʔok], dzakami, dzapakani]. There is, however, no evidence that /z/ has a nasal counterpart.

A second piece of evidence for the anchorage of nasality to the right end of a morpheme can be found in loan words:

Although nativization strategies cannot always be equated with actual constraints that account for the phonotactic structure of the borrowing language, one would expect, on the other hand, that the constraints of the borrowing language are always active when words from another language are adapted. (Wetzels 2007)

In all the languages from which Emerillon has borrowed words (i.e., essentially French, Creoles, and other Amerindian languages), nasality is a segmental feature. In the process of adaptation to the target phonological system, these words are integrated as either oral or (partially or totally) nasal morphemes, whereby the lexeme undergoes either nasalization or denasalization so that the resulting form always fits with what is expected according to the native system. The selection of complete nasalization vs. denasalization seems to be induced by the nasality of its final segment in the source language. Words with a nasal final segment in the source language are completely nasalized in Emerillon (4a–c). Those with an oral final segment (even though some initial segments may be nasal) are denasalized (4d, e). Moreover, example (4f) shows that a [m] towards the end of the source lexeme may be realized as post-oralized and triggers partial nasalization.

- (4)            Nasalization
- a. [dípē] (Guianese Creole) → [nīpē] ‘bread’ (Emerillon)
  - b. [savō] (French) → [sāīwā] ‘soap’ (Emerillon)
  - c. [faʁin] (French or Guianese Creole)<sup>8</sup> → [pānīn] ‘flour’ (Emerillon)
- Denasalization
- d. [malija] (Wayana) → [baliɕa] ‘knife’ (Emerillon)
  - e. [mōpɛʁ] (French) → [bopetʰ] ‘priest’ (Emerillon)
- Partial nasalization
- f. [pomad] (French or Guianese Creole) → [pōmbatʰ] ‘gel’ (Emerillon)

The question left to be discussed now is: What is the trigger of nasal harmony? Here are three alternative hypotheses.

8. [ʁ] of the source language is usually substituted with [r], cf. [sitruj] ‘pumpkin’ (French) → [situruɕ] (Emerillon).

On the first hypothesis, nasality is a suprasegmental feature, a phonological feature of morphemes as a whole, rather than of particular phonemes. It is mapped to the rightmost element of the morpheme and spreads leftward. Nasality is then assigned lexically. This explains the cases of totally nasalized roots. Then partially nasalized roots must be explained by phonetic spreading of nasality from prenasalized consonants, a pattern that is typologically uncommon (Leo Wetzels, personal communication). This analysis is proposed by Piggott for Guaraní, another Tupí-Guaraní language with a similar realization of nasality:

[i]n the case of nasal morphemes, a floating nasal autosegment must be present. The other source of nasality must be segmental, since nasality can spread from a point internal to a morpheme. [...] Since it is the latter segment [a prenasalized stop – FR] that obligatorily appears between nasal and oral sequences, the most likely source of the nasality that spreads leftward is an underlying nasal consonant, which is phonetically realized as a prenasalized stop. (Piggott 1992: 57)

Tupí-Guaranists like Cabral follow a comparable analysis. The autosegmental feature is associated with the opposition between oral and nasal stresses (Cabral 2000, Grannier Rodrigues 1990). In a previous publication, our first analysis of Emerillon nasality was autosegmental (Rose 2002a).

Under the second hypothesis, nasality is always phonemic, and total and partial nasalization constitute a unique phenomenon. One would have to postulate underlying nasal vowels and nasal consonants, triggering nasal harmony leftward. To explain partially nasalized roots, consonants in intervocalic position should also be seen as post-oral variants of /m/ and /n/. This analysis is not satisfactory because it does not account for the facts that only one contrast per word is possible, that no oral voiced segment can be found to the right of a nasal segment (except when a prenasalized stop intervenes), and that voiced non-continuants are not found word-finally (except as a result of intervocalic voicing).

A third alternative satisfactorily explains both nasalization and final consonant distribution. A lenition rule according to which voiced non-continuants in final position are systematically nasalized must be postulated, accounting for morpheme-final consonants being either unreleased (e.g., /tapitʃ/ [tapitʃ̚] ‘house’) or nasal (e.g., /tabiç̃/ [tãm̃iç̃] ‘grandfather’). The same lenition rule applies exclusively to /b/ and /d/ in intervocalic position, nasalizing them. However, in intervocalic position, the nasalized consonant will be post-oralized (e.g., /aduç̃a/ [ãnduç̃a] ‘mouse’). As a result, the distinction between oral stops, nasals, and prenasals is neutralized. The consonants that are phonetically realized as nasals or prenasals, whether in final or intervocalic position, will trigger nasal harmony to their left. However, this analysis still makes it necessary to assume underlying nasal vowels. To predict that morphemes have

at most one nasal span, nasal vowels must be restricted to morpheme-final position.

2.4.4. *The propagation of nasality to adjacent morphemes.* Affixes are either nasalizable or they are not (only enclitics can be lexically nasal). Indeed, nasal harmony can propagate within the word to some affixes (prefixes and suffixes) that are adjacent to a totally nasalized root or to the nasal part of a partially nasalized root. In the following examples, the relational *r-* (5a), and the negation *-ɕi* (5d) are affected by nasal harmony on a totally nasal root as in (5b, e). Other prefixes are always oral, like *e-* in (5a–c), while a few are very rarely nasalized, like *d-* and *o-* (5d–f). Finally, some enclitics are always nasal (but do not trigger nasality propagation themselves, like *-(o)ŋ* in (5f)).

- (5) a. [e-r-ɸitʃ̃]  
1SG.II-RELN-house  
'my house'
- b. [e-n-ãmĩŋ]  
1SG.II-RELN-grandfather  
'my grandfather'
- c. [e-měmbitʃ̃]  
1SG.II-son  
'my son'
- d. [d-a-ɕapiaka-ɕi]  
NEG-1SG.I-think-NEG  
'I don't think so.'
- e. [d-o-mãñð-ɸĩ] ~ [n-ð-mãñð-ɸĩ]  
NEG-3.I-die-NEG  
'he didn't die'
- f. [o-pihig-ðŋ]  
3.I-catch-PL.S  
'they caught it'

It is worthwhile noting that while spreading within morphemes is strictly leftward, propagation to adjacent morphemes is attested both leftward and rightward.

2.4.5. *Emerillon within the typology of nasal harmony.* Recent research on nasal harmony, generally based on secondary data, distinguishes two types of nasal harmony. In the phonetic or segmental type of nasal harmony (Type A in Piggott's terms), nasality spreads from a nasal segment until it is blocked by an opaque segment (Piggott 1992). For example, in Sundanese, non-nasal, supralaryngeal consonants block the long distance spreading of nasality (Cohn 1990). In the prosodic or suprasegmental type, defined as Type B by Piggott,

nasal harmony is operating through morpheme-level or word-level specifications for [+nasal] or [-nasal], where most segments surface differently in nasal and non nasal morphemes. It is correlated with the absence of opaque segments: even plosives are transparent. In other words, there is no adjacency requirement: the rule applies no matter what intervenes between the trigger and the target (Odden 1994). Type B is exemplified by a very few languages in the literature, and essentially these are languages from South America, among which Guaraní and the Tucanoan languages (see, for example, Piggott 1992, Gomez-Imbert 1997). However, some authors suggest that suprasegmental nasality could always, in principle, be reanalyzed as based on segmental nasality.

Nasal harmony in Emerillon basically displays the characteristics of Piggott's Type B. However, it has been shown that nasal harmony in Emerillon can be seen as triggered by nasal allophones of oral segments. This is accounted for in Piggott's typology, where "a Type A language must have underlying nasal consonants, but similar segments may all be derived in a Type B language" (Piggott 1992: 62). However, Emerillon constitutes a very particular illustration of that last case, in that nasality does not have to be derived from a suprasegmental feature, but can be seen as the result of allophony.

Moreover, the phonological rule nasalizing voiced non-continuants in final position (and for some in intervocalic position) is not common, although it is plausible that voiced obstruents are phonetically hard to maintain in final position. Comparable processes of lenition of postvocalic stops into nasals are found in Japanese (Shibatani 1990, Tsujimura 1996). Rodrigues (2003) puts forward a phonetic hypothesis explaining how silence (i.e., final position) can cause nasalization, due to desynchronization of the velum movements.

Finally, the Emerillon data also challenge the question of transparency. Walker's (2003) scale, ranking segments according to their compatibility with nasalization, predicts that (i) if a segment blocks nasalization, all segments less compatible with nasality will also block it, and (ii) if a segment is permeable (nasalized or transparent), all segments more compatible by the nasalization hierarchy will also be permeable.

(6) Vowels > Glides > Liquids > Fricatives > Obstruent stops

Yet the hierarchy does not predict, within the permeable segments, which will be targets and which will be transparents. In Emerillon, voiced obstruent stops undergo nasalization while voiced fricatives resist nasalization (as well as all voiceless segments).

The Emerillon phonological system is particularly interesting in displaying a type of nasal harmony system at morpheme-level that has come to be discussed for South American languages (Peng 2000, Rodrigues 2003). Moreover, it chal-

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lenges typologies of nasal harmony on several points, such as the trigger and transparency.<sup>9</sup>

### 3. Morphology

#### 3.1. Overview

Morphological typology categorizes languages according to two parameters: fusion, the degree to which morphemes are easily segmentable, and synthesis, the number of morphemes per word (Comrie 1981). On these scales, Emerillon is an agglutinative language, leaning towards polysynthesis.

- (7) *ere-mo-zaug-a-ōwā-zepe-ʔe-po* *mamā, ɕasor?*  
 2SG.I-CAUS-bathe-REF-little-CONCES-INTENS-INTER Mum Djasot  
 'But did you really wash Mum properly, Djasot?'

Emerillon employs predominantly suffixes or enclitics, with only limited prefixation. Prefixes are all person markers, some voice markers, one negative marker, and one subordinator. Emerillon is a head-marking language. There is greater morphological complexity on the predicate, which carries most of the grammatical morphemes, and also undergoes reduplication (Rose 2005, 2007).

#### 3.2. A hierarchical indexation system

Within the domain of verb morphology, the Emerillon indexation system is the most challenging feature. In most Tupí-Guaraní languages, indexation differs in dependent and independent clauses.<sup>10</sup> In Emerillon, however, dependent and independent clauses follow the same indexation pattern. The system presented below is comparable to the indexation system in other Tupí-Guaraní independent clauses, but nowadays also applies to dependent clauses in Emerillon.

Person markers are divided into two main sets, called Set I and Set II, as shown in Table 3.

We will now look at their specific distribution on verbs. On intransitive verbs, only Set I is found, to index S:

- (8) *a-ʔita ʔi-pope.*  
 1SG.I-swim river-in  
 'I swim in the river.'

On transitive verbs, Set I is used for A and Set II for P.

9. In the transcription system used in the rest of the article, I note both nasal vowels and nasal consonants. It is therefore not a pure phonological writing, but aims at greater ease of processing.

10. In Tupí-Guaraní languages, indexation in dependent clauses is usually described as following an absolutive system with some coreference pattern (see Jensen 1998: 526–532 for further details).



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The second hierarchy is the semantic role hierarchy (12), at work whenever the person hierarchy is not relevant, i.e., between two 3rd persons or two speech act participants.

(12) Semantic roles hierarchy: A > P

When a 3rd person acts on another 3rd person, it is the A that is systematically marked (with a Set I index), whatever the arguments refer to.

- (13) a. *patu-pope o-ipuŋ.*  
 pot-in 3.I-put  
 'She puts them (the sweet potatoes) in the pot.'
- b. *arakapusa-uhu o-mōdur-oŋ bal.*  
 gun-big 3.I-send-PL.S bullet  
 'Guns were shooting bullets.'
- c. *o-pero-perog eiba Ø-owa.*  
 3.I-RED-lick 3.II.pet 3.II-face  
 'His dog licks his face.'

The local configurations (i.e., when the two speech-act participants are involved) basically also follow the A > P hierarchy, with residues of the Proto-Tupí-Guaraní 1 > 2 > 3 hierarchy. When a 2nd person acts on a 1st person, the A is marked on the verb, with a Set I index. To specify the person of the P, an extra independent marker is used.

- (14) a. *ere-nupã ereŋ.*  
 2SG.I-hit 2SG+ŋ  
 'You (SG) hit me.'
- b. *ere-nupã orone-kom.*  
 2SG.I-hit 1EXCL-PL  
 'You (SG) hit us (EXCL).'
- c. *pe-nupã peŋ.*  
 2PL.I-hit 2PL+ŋ  
 'You (PL) hit me.'
- d. *pe-nupã orone-kom.*  
 2PL.I-hit 1EXCL-PL  
 'You (PL) hit us (EXCL).'

The presence of the independent pronominal form is necessary to disambiguate the 2 → 1 configuration from the configuration where a 2nd person A acts on a 3rd person P (15).

- (15) *ere-nupã.*  
 2SG.I-hit  
 'You (SG) hit him/her/it/them.'



In the four cases presented in (14), the Set I index on the verb refers to the 2nd person A. In (14b, d), *oronekom*, the normal free pronoun for 1st person exclusive, refers explicitly to P, as expected. Surprisingly, in (14a, c), the independent forms, used only in this specific configuration, are linked to 2nd person pronominal forms (*ere-* and *pe-* are the Set I indexes for 2nd person singular and plural, the origin of *p* is unexplained) rather than to 1st persons. The system seems *a priori* aberrant in synchrony: in order to refer to a 2nd person A a 1st person P, two markers for 2nd person are used. This peculiar use of the independent person marker can probably be explained as a hypothetical residue of a Proto-Tupí-Guaraní marker for A. The hierarchy in Proto-Tupí-Guaraní is supposed to have been 1 > 2 > 3 (Jensen 1998, Montserrat & Soares 1983). Therefore, in the same configuration, the 1st person P, being higher in the hierarchy, is indexed before the verb and the 2nd person A is then expressed with an independent marker following the verb, as illustrated in (16) from Tupinambá (Jensen 1998).

- (16) *sjé r-epjak pejepé.*  
 1SG.II RELN-see 2PL.PRO  
 'You (PL) all see me.'

My hypothesis is that the 2nd person marker remained in the same position in this configuration in Emerillon, even though the 1 > 2 hierarchy was neutralized between the speech act participants. The semantic role hierarchy came into play to compensate this loss. It is not surprising that a language would not hierarchically distinguish between the speech act participants. 1st and 2nd person are independent within the hierarchy, their relative order fluctuates from one language to the other (Silverstein 1976).

When a 1st person acts on a 2nd person singular, Emerillon uses the Set I marker for 1st person exclusive (17).

- (17) *oro-nupã.*  
 1EXCL.I-hit  
 'I/we hit you.' (but also: 'We hit it/her/him/them.')

When a 1st person (singular or plural) acts on a 2nd person plural, A is marked with a Set I marker for 1st person singular, and P with an index referring to generic human object (*poro-*).

- (18) *a-poro-nupã.*  
 1SG.I-INDET.II-hit  
 'I/we hit you all.' (lit. 'I hit people.')

The reorganization of the person hierarchy as well as the substitution patterns illustrated above for some local configurations can be explained by po-

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liteness.<sup>11</sup> It is tightly correlated with the fact that languages disfavor transparent marking of 1st and 2nd person combinations (Heath 1998). This assertion is confirmed by the fact that both in Emerillon (1/2 > 3) and in the hypothetical Proto-Tupí-Guaraní (1 > 2 > 3), the marking is very clear and systematic when only one speech act participant is involved, but less so when both 1st and 2nd person are involved.

### 3.3. *Emerillon within the typology of indexation systems*

To give a brief summary of the Emerillon person indexation system on the verbs, intransitive verbs take a Set I index, while transitive verbs allow only one person index, from Set I for A or from Set II for P. The correct index is selected according to the relative position of the two arguments on both the person hierarchy 1/2 > 3 and the semantic role hierarchy A > P. Two hierarchies are involved, and are ordered as follows:

(19) Person hierarchy (1/2 > 3) > Semantic role hierarchy (A > P)

The terms “person hierarchy” and “semantic role hierarchy” used here correspond roughly to other designations that emerged after Silverstein’s pioneer work on hierarchies of features (Silverstein 1976): “animacy hierarchy” (Comrie 1981), “referential or inherent topicality hierarchy” (Givón 1994), “saliency hierarchy” (Klaiman 1991), “empathy hierarchy” (DeLancey 1981). A cover term that surfaced recently is “indexability hierarchy” (Bickel & Nichols 2007). Both hierarchies used in Emerillon could logically be justified in terms of saliency, the most salient participant being put forward. It is, nevertheless, important to assert that this system is completely grammaticalized: whatever the characteristics of the participants are, what counts in the system is the grammatical persons and the semantic roles.

The semantic role hierarchy becomes relevant when, and only when, the person hierarchy is not. I argue that this type of indexation system should be classified as hierarchical, since the primary organizing pattern is the notion of hierarchy (Cf. also Rose 2001, 2003a).

D. Payne formulated the hypothesis that Tupí-Guaraní languages could be described as having an inverse system (D. Payne 1994). On the basis of Givón’s

11. It is a general fact about communication that the situations involving both speech act participants create a confrontation between the speaker and the addressee who is in a lower position. Languages often use devices like pluralization or substitution of a person for another to soften this confrontation (Brown & Levinson 1987). Thus, the plural form for a singular in (17) may be a means of weakening the 1st person subject, thus making the relation less “threatening” for the addressee. In (18), the use of a singular form for the subject and a generic form for the 2nd person creates a distance that softens the confrontation.

The predicate is the only obligatory constituent. Besides verbal predication, another noticeable type of predication is based on a nominal root.

#### 4.2. Possessive nominal predicates

Items that are unambiguously described as nouns can function as intransitive predicates and constitute complete clauses (24).

- (24) *orone-karakuri-nam pe-r-upi oro-ho-tar-uwe.*  
 1EXCL.II-money-when way-RELN-ON 1EXCL.I-go-FUT-too  
 'When we have money, we'll go that way too.'

The following example illustrates the fact that a noun, once preceded by a Set II marker (usually marking the possessor on a nominal head), can function either as an argument or as a predicate. The first occurrence of *ičarič* is a predicate ('she has a grandmother'), while the second occurrence is an argument ('her grandmother').

- (25) *i-čarič-a-nam, i-čarič-a-te o-ma?ē*  
 3.II-grandmother-REF-when 3.II-grandmother-REF-FOC 3.I-watch  
*Ø-ehe.*  
 3.II-POSTP  
 'If she has a grandmother, then it is her grandmother that watches her.'

This type of nominal predicates shares the properties of verbal predicates. The following pairs of sentences show that nominal predicates (in (a)) and verbal predicates (in (b)) equally carry the plural subject marker (26), sentence negation (27), TMA (28), and voice markers (29).

- (26) a. *e-iba-ŋ, kučatāikīr-a-kom.*  
 3.II-pet-PL.S teenage.girl-REF-PL  
 'They have a pet, the girls.'  
 b. *e-potar-oŋ.*  
 1SG.II-like-PL.S  
 'They like me.'
- (27) a. *d-e-sapato-č̣i-āhā ič̣e t-a-k<sup>w</sup>a-ŋ.*  
 NEG-1SG.II-shoe-NEG-only PRO.1SG PURP-1SG.I-PASS-CONT  
 'I don't have any shoes for me to go.'  
 b. *d-o-?u-č̣i sautu.*  
 NEG-3.I-eat-NEG salt  
 'She does not eat salt.'
- (28) a. *e-r-apīč̣-tar.*  
 1SG.II-RELN-house-FUT  
 'I will have a house.'

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- b. *wane-maʔẽ za-ikiɕ-tar apam-a-wi.*  
 good-REL INDET.I-take-FUT foreigner-REF-ABL  
 'We will take the good things to the foreigners.'
- (29) a. *o-ze-mo-kasi-ne.*  
 3.I-REFL-CAUS-strength-CONTRAST  
 'He made himself strong.'
- b. *zawar-a-r-ehe o-ze-mõ-bori.*  
 dog-REL-RELN-with 3.I-REFL-CAUS-make.happy  
 'He is having fun with the dog.'

Although "the predicative function cannot be taken as a serious criterion for distinguishing between nouns and verbs" (Queixalós 2006: 252), yet the distinction between noun and verb categories is clear: while nouns can function as predicates with the appropriate morphology, verbs need to function as the predicate of a relative clause to be used as arguments (cf. (30a, b)). A collective book (Queixalós (ed.) 2001), as well as a paper in historical linguistics (Queixalós 2006), have been devoted to the topic of parts of speech and their function in Tupí-Guaraní languages.

- (30) a. *Polo o-manõ.*  
 Paulo 3.I-die  
 'Paulo died.'
- b. *o-kuwa-pa o-manõ-maʔẽ.*  
 3.I-know-COMPL 3.I-die-REL  
 'He (God) knows all the dead ones.'

In the typological literature, "nominal predication" usually refers to cases where a noun has a predicative function, without necessarily having the same morphology as verbs. Thus, in many cases of so-called nominal predication, copulas (may) appear. Nominal predicates<sup>13</sup> are not completely comparable to verbal predicates. In this sense, nominal predicates typically convey the meaning of inclusion, equation, attribution, location, and existence (T. Payne 1997).

Nominal predicates in Emerillon substantially deviate from this characterization (Rose 2002b). First, nominal predicates display exactly the same morphology as verbs (plural subject marker, negation, voice, TAM, cf. (26)–(29)), which is therefore called "predicate morphology". They only differ in the indexation of their unique argument. Nominal predicates encode it with a Set II index and intransitive verbs with a Set I index. Second, the meaning of these predications is possessive. They contrast with other devices for 'be' functions, such as the use of a verb *ɕu* 'be' for inclusion (31a), or the copula *kob* for existence (31b).

13. "Predicate nominals" in standard terminology.



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It is noteworthy that the split between these two categories is semantically based (Queixalós 2001a), respecting moreover the semantic classes defined by Dixon (Dixon 1977). The descriptive category discussed in this section expresses “human propensity” and “physical property”, while the one diverging from the Tupí-Guaraní descriptive category expresses “size, color, value”.

The two alternative analyses of descriptive words as nouns or verbs stem from the fact that descriptive words are usually used as predicates (like verbs), but are only once preceded by a Set II marker, just like the nouns as we observed in Section 4.2. Since descriptive predicates (32) are parallel to other nominal predicates (cf. Section 4.2), they are basically nouns. In contrast to verbs, they do not need to be relativized to function as arguments. The differences they may show from other nouns (i.e., being rarely used as NP heads, with plural or copulas) may easily be explained by semantic factors. These words basically refer to human qualities, physical sensations, and mental phenomena.

#### 4.4. *The Emerillon alignment system*

Now that both verbal and nominal predication have been presented, the issue can be addressed of how the single argument of intransitive predicates aligns with the arguments of transitive predicates. Since arguments are not marked for case and constituent order is quite flexible, the argumentation will be based on the indexation pattern described above and on syntactic phenomena.

In Section 3.2, it was shown that the single argument of an intransitive verb aligns with the A argument of a transitive verb: both are indexed with a Set I person marker, while P is indexed with a Set II marker. This forms a nominative-accusative system. Moreover, number agreement can be used to identify the subject relation: the plural clitic (*oŋ*) in (33) agrees exclusively with the unique argument of a verbal (33a) or nominal (33b) intransitive predicate and with the A argument of a transitive verb (33c), thus defining the subject relation.

- (33) a. *o-paʔam-oŋ ikiʔi.*  
 3.I-get.up-PL.S then  
 ‘Then they got up.’
- b. *i-awu-ŋ.*  
 3.II-word-PL.S  
 ‘They speak.’
- c. *baiputi o-piʔig-oŋ.*  
 tapir 3.I-catch-PL.S  
 ‘They caught a tapir.’

- d. \**a-ikič-ɔŋ*.  
 1SG.I-catch-PL.S  
 'I caught them.'

Another criterion is widely used by Tupi-Guaranists to define the subject grammatical relation. The use of an *o-* index for 3rd person possessors or objects of postpositions is specifically triggered by coreference with the subject, be it of the unique argument of a verbal (34a) or nominal (34b) intransitive predicate and the A argument of a transitive verb (34c).

- (34) a. *o-ho i-koti o-wi-koti*.  
 3.I-go 3.II-to 3.COREF-mother-to  
 'He is going to her, to his mother.'
- b. *Bopea t-aʔit-piri o-kupa-wi*.  
 Monpera 3.II-son-more 3.COREF-sister-ABL  
 'Monpera has more kids than his (own) sister does.'
- c. *bokal-a-pe o-akan o-mōde*.  
 jar-REF-in 3.COREF-head 3.I-put  
 'He put his (own) head in the jar.'

However, if we take into account nominal predicates, the alignment system can also be interpreted as one of split intransitivity, since the unique argument of intransitive predicates is marked differently. Set I is found on verbal predicates (whether unaccusative or unergative) and Set II on nominal predicates.

- (35) a. *a-ʔita ʔi-pope*.  
 1SG.I-swim river-in  
 'I swim in the river.'
- b. *e-kaneʔō*.  
 1SG.II-fatigue  
 'I am tired.'

Most languages displaying split-intransitivity morphologically distinguish intransitive predicates on the basis of either their aspect (active or stative) or the agentivity of the unique argument (Mithun 1991). In line with the analysis of descriptive words as nouns (see Section 4.3), the Emerillon split-intransitivity system is untypical, as it does not operate within verbs, but between intransitive verbs and nominal predicates. These latter are specialized in expressing a subset of stative events, namely possessive predication, physical properties, and human propensities.

In conclusion, the Emerillon alignment system can be said to be nominative-accusative for verbs, where S and A are marked with Set I and P with Set II (cf. Section 3.2), but with an intransitivity split on predicates in general, including

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nominal predicates (S and A are marked with Set I on verbs, while P and the unique argument of nominal predicates are marked with Set II).

## 5. Valency issues

As far as valency issues are concerned, Emerillon is representative of the Tupí-Guaraní family. A sociative causative is one of the features shared by the whole family which was not accounted for previously in the typological literature.

### 5.1. Valency and valency-changing derivations

Underived predicates are clearly either intransitive or transitive in Emerillon. This language has neither ambitransitive nor ditransitive predicates.<sup>14</sup> Two predicates sharing their arguments can combine in a single clause by means of a serial verb construction (as elsewhere, see Durie 2000, Pawley & Lane 1998, Schiller 1990). Serial verb constructions in Emerillon express direction (36), motion, or sequential action.

- (36) *kaʔi*                      *o-weʒu*      *o-ʔu*.  
 monkey.species 3.I-go.down 3.I-come  
 'The monkey is coming down.'

Reflexive-reciprocal is the only valency-reducing derivation of Emerillon. There is no passive.

- (37) a. *o-ze-mim*.  
 3.I-REFL/RECIP-hide  
 'He hid himself.'  
 b. *si-ze-aihi-kom!*  
 PURP.1INCL.I-REFL/RECIP-love-PL.S  
 'Let us love each other!'

Emerillon also exhibits a mechanism for reorganizing valency, namely noun incorporation. Only dependent nouns can be incorporated, i.e., nouns that are obligatorily modified by a possessor when they are heads of a nominal phrase: *iru* 'clothes' is such a noun (37b), whose possessor must always be specified, except when incorporated as in (38a). Their incorporation is triggered by the assignment of an affected human patient to the object position, like 'mother' in (38a) (Rose 2008).

14. There is a subclass of intransitive verbs that mark a second participant with the postposition *ehe* 'to'. These verbs express cognition or perception events, like *maʔe* 'to see', *ʒapiaka* 'to think'.



- (38) a. *o-itu-a-nē-ʔe* *o-ipuŋ-oŋ.*  
 3.COREF-clothes-REF-CONTRAST-INTENS 3.I-put-PL.S  
 'They were wearing clothes.'  
 b. *o-í* *o-itu-mōde.*  
 3.COREF-mother 3.I-clothes-put.on  
 'He dressed his mother.' (lit. 'He clothes-put his mother.')

Finally, the three valency-increasing operations of Emerillon are all different varieties of causatives. The first is specialized for intransitive predicates and expresses direct causation (typically with physical manipulation of a patientive causee, as in (39a)). The second is specialized for transitive predicates and expresses indirect causation (typically with an agentive causee obeying to oral direction as in (39b)). The third is specialized for sociative causation on intransitive stems, as illustrated in (39c); it is described in greater detail in the following section.

- (39) a. *wane iŋe a-mo-zaug.*  
 well PRO.1SG 1SG.I-CAUS-bathe  
 'I wash her well.' (lit. 'I make her bathe well.')
- b. *iŋe-a-te lekol a-ipuŋ-okar.*  
 PRO1SG-REF-FOC school 1SG.I-put-CAUS  
 'I had the school settle here.' (lit. 'I made them put the school.')
- c. *pe-ro-porahaŋ-kom.*  
 2PL.I-CAUS.SOC-dance-PL  
 'You made them dance with you.'

## 5.2. Sociative causative

Tupí-Guaraní languages, and among them Emerillon, have a specific marker for sociative causation, a supposedly rare feature. Sociative causation is a special type of causation, where the causer not only makes the causee do an action, but also participates in it. On Emerillon intransitive predicates, the sociative causative marker *ero-* (40b) contrasts with the regular causative marker *bo-* ~ *mō-* (40a); further instances of *ero-* are given in (40c-e).

- (40) a. *wāiwī o-mō-ker ʔimaʔē.*  
 woman 3.I-CAUS-sleep child  
 'The woman is putting the child to sleep.'
- b. *o-er-aho o-ero-ker.*  
 3.I-CAUS.SOC-go 3.I-CAUS.SOC-sleep  
 '(The husband) carries (his new wife, who is drunk) and makes her sleep with him.'

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- c. *o-ero-kwa*            *baʔezaʔu*.  
 3.I-CAUS.SOC-pass food  
 'She distributed food' (lit. 'She passed by and had food pass with her.')
- d. *zawar-enam*        *ka*    *o-(w)ero-nan*.  
 dog-TOP.SWITCH wasp 3.I-CAUS.SOC-run  
 'The dog runs with the wasps.' (The dog makes the wasps "run" with him.)
- e. *zawar o-ero-ʔar*            *tupawər*.  
 dog 3.I-CAUS.SOC-fall box  
 'The dog makes the box fall (when falling himself).'

Shibatani & Pardeshi (2002) distinguish three nuances of sociative causation, depending on the extent to which the action of the causer is identical to that of the causee: (i) joint action, when both causer and causee perform the same action; (ii) assistive, when the causer helps the causee without performing exactly the same action; (iii) supervision, when the causer supervises the action performed by the causee. Within the domain of specific markers for sociative causative, the Emerillon case is restricted to intransitive predicates, and to the semantic nuance of sociative causation called joint-action, where both causer and causee perform the same action.

Sociative causation is usually seen as a possible meaning extension of regular causative markers, as discussed by Kulikov (2001) and Shibatani & Pardeshi (2002). This is fairly frequent crosslinguistically. In contrast, specific sociative causative markers are hardly ever discussed in general typology, with the exception of Dixon's typology of causative that posits a special type of causative called "causative of involvement" (Dixon 2000). Specific markers for sociative causative were probably first identified in the Tupí-Guaraní family, under the name of comitative causation (Adam 1896, Rodrigues 1953). The existence of such a supposedly rare type of causative both in Emerillon and in another Amazonian language, Cavineña (Guillaume 2008), prompted us to carry out a crosslinguistic survey of sociative causation (Rose & Guillaume 2007). This survey demonstrates that in actual fact specific sociative causative markers are not that rare. They are above all widespread in South American languages, being attested for instance in the Tupí, Tacanan, and Quechuan families.

## 6. Conclusion

In this Language Profile, I have tried to give a brief overview of Emerillon grammar by presenting in a succinct way its phonological, morphological, and syntactic components. Special attention was given to characteristics that are both central to the language and representative of the Tupí-Guaraní family as a whole. The main focus has been on specific features that are little represented in

typological surveys: nasal harmony, hierarchical indexation system, possessive nominal predication, and sociative causative. These features may be recognized as less unusual in the future, if – as we expect – they are to be found in some other Amazonian languages that still lack a comprehensive description.

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*Correspondence address:* Laboratoire Dynamique du Langage, CNRS, Institut des Sciences de l'Homme, 14 avenue Berthelot, 69363 Lyon Cedex 07, France; e-mail: francoise.rose@univ-lyon2.fr

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*Abbreviations:* 1/2/3 1st/2nd/3rd person; I/II Set I/II person index; A agent of transitive verb; ABL ablative; CAUS causative; CAUS.SOC sociative causative; COMPL completive; CONCES concessive; CONT continuous; CONTRAST contrastive; COP copula; COREF coreferential; DIM diminutive; EXCL exclusive; FOC focus; FUT future; INCL inclusive; INDET indeterminate; INTENS intensifier; INTER/EXCL interrogation/exclamation particle; NEG negation; P patient of transitive verb; PL plural; POST postposition; PRO pronoun; PURP purposive; RED reduplication; REF referential; REFL/RECP reflexive-reciprocal; REL relativizer; RELN relational marker; s argument of intransitive verb; SG singular; TOP.SWITCH topic switch.

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## Le syncrétisme adpositions/subordonnants. Proposition de typologie syntaxique

Françoise ROSE\*

L'origine des marques de dépendance a constitué un des points d'intérêt de la théorie de la grammaticalisation (Cf. par exemple Hopper et Traugott, 1993, p. 167), par l'étude du développement de noms, de verbes, de démonstratifs ou d'adpositions en subordonnants. Cet article s'intéresse plus particulièrement aux cas où des subordonnants d'une langue ont la même forme que des adpositions de cette même langue, comme illustrés dans les exemples suivants, sans postuler d'évolution diachronique particulière.

*newari - dolakhali dialect* (Genetti, 1991, p.227)

- |     |   |                     |
|-----|---|---------------------|
| (1) | cotan- <b>na</b> pol-ju   | <u>postposition</u> |
|     | cuillère- <b>INSTR</b> frapper-3SG.PASSE  |                     |
|     | Il l'a frappé avec une cuillère.  |                     |
| (2) | chē-ku yer- <b>na</b> wā ām-e naku moŋ-an coŋ-gu.                               | <u>subordonnant</u> |
|     | maison-LOC venir- <b>quand</b> EMPH il-GEN joue enfler-PART rester-3SG.PASSEHAB |                     |
|     | Quand il est venu à la maison, sa joue était enflée.                            |                     |

*rama* (Craig, 1991, p.471) : ka(ng)

- |     |  |                     |
|-----|--|---------------------|
| (3) | nah altawa-i naing taata <b>kang.</b>                      | <u>postposition</u> |
|     | je avoir.peur-TNS mon père <b>PSP/de</b>                   |                     |
|     | J'ai peur de mon père.                                     |                     |
| (4) | nah kaafi ngu-atkut- <b>ka</b> kalma ni-sku-ut.            | <u>subordonnant</u> |
|     | je café boire-ASP-SUB vêtements 1-laver-TNS                |                     |
|     | Quand j'aurai fini de boire mon café, je ferai la lessive. |                     |

Nous utilisons comme définition de départ d'adposition un élément situé à la marge d'un constituant nominal indiquant le statut syntaxique et la fonction sémantique de ce constituant nominal dans le reste de la phrase<sup>1</sup>. Le terme d'adposition englobe les prépositions et les postpositions, distinguées par leur position vis-à-vis du syntagme nominal. Nous entendons par subordonnée une proposition qui s'intègre dans une autre proposition (dite principale ou matrice) dans la position soit d'un argument du verbe, du nom ou d'un autre élément (la complétive, Noonan 1985, Vincent 1999), soit d'un modifieur du nom (la relative

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\* Institution: Centre d'Etudes des Langues Indigènes d'Amérique (CNRS/IRD). Contact: [rose@vjf.cnrs.fr](mailto:rose@vjf.cnrs.fr)

<sup>1</sup> Pour une description détaillée des adpositions, cf. Jaworska, 1999.

dans sa fonction déterminative, Keenan 1985), soit d'une relation périphérique (la subordonnée circonstancielle<sup>2</sup>).

Cet article se concentre sur les subordonnées circonstancielles, c'est-à-dire les cas où les adpositions permettent l'intégration d'un élément propositionnel dans une position oblique. Sont donc laissés de côté les nombreux cas où les adpositions permettent d'intégrer une proposition dans la position de complément (Washabaugh 1975 ; Haspelmath, 1989 ; Winford, 1993) ou dans la fonction de relative.

Cette étude se fonde sur une base de données constituée de manière non systématique mais comportant pour autant des langues d'une grande variété génétique, géographique et typologique (Cf. liste en annexe). Nous adressons nos sincères remerciements à toutes les personnes ayant répondu au questionnaire à l'origine de cette base de données : pour ces échanges enrichissants et le partage des données, merci à l'ensemble de l'équipe « *Typologie des relations et des marqueurs de dépendance interpropositionnels*<sup>3</sup> » de la Fédération de Typologie (Responsable : I. Brill) et tout particulièrement D. Creissels et I. Brill, ainsi que les personnes ayant répondu au questionnaire par l'intermédiaire de la liste LingTyp.

Cette recherche a une visée typologique. Elle se donne pour but de présenter différents cas de syncrétisme adposition/subordonnant présents dans les langues du monde, en précisant la nature syntaxique de la proposition subordonnée introduite par le morphème en question (en gras dans les exemples). Nous comparons cette subordonnée d'une part aux groupes nominaux, et de l'autre part aux propositions indépendantes de la même langue. En effet, dans les cas de syncrétisme, on peut remarquer un continuum entre d'un côté des propositions dont la seule différence avec une proposition indépendante est la présence du subordonnant, et de l'autre des groupes adpositionnels prototypiques à caractéristiques nominales. Entre les deux pôles du continuum prennent place divers types de constructions, chaque degré du continuum étant caractérisé par un rapport différent entre caractéristiques verbales et nominales.

Le nombre encore restreint de langues étudiées ne permet pas que ressortent de manière évidente un nombre précis de types discrets et clairement défini représentant des étapes sur ce continuum. En effet, vu la pluralité de facteurs de « nominalité » ou « verbalité », les types envisageables sont nombreux. Pour cependant proposer une première typologie des cas de syncrétisme adpositions/subordonnants, nous organisons notre classification en cinq grands types autour du paramètre d'asymétrie originellement développé par Bisang (2001). L'asymétrie étant vue comme le différentiel dans la présence de catégories obligatoires sur la forme verbale, on distinguera l'asymétrie négative, à savoir l'absence dans la forme subordonnée de catégories obligatoires dans la

<sup>2</sup> Dite « adverbial subordination » dans la tradition anglophone.

<sup>3</sup> <http://www.typologie.cnrs.fr>



principale (temps, marque de déclaration, personne...) de l'asymétrie positive, à comprendre comme l'ajout dans la subordonnée d'informations non nécessaires dans la principale (marque de subordination, cas, personne...).

Au-delà du classement typologique, se pose une question d'analyse du morphème dit syncrétique et de la structure qu'il gouverne : dans chaque cas d'apparent syncrétisme adposition/subordonnant, a-t-on affaire à une adposition et un groupe adpositionnel ou à un subordonnant et une propositions subordonnée? En fin de compte, cette étude réinterroge donc la notion de proposition subordonnée, à travers les notions de finitude, de nominalisation et de polyfonctionnalité.

#### 1. PROPOSITIONS FINIES INTRODUITES PAR UNE ADPOSITION COMPARABLES AUX PROPOSITIONS INDÉPENDANTES : UN CAS DE SYMÉTRIE

Le cas le plus simple parmi les langues où le même morphème introduit aussi bien un groupe nominal qu'une proposition, est représenté par des propositions qui ne sont pas spécialement marquées par rapport aux indépendantes. Pour Bisang, les langues d'Asie de l'Est et du Sud-Est dans lesquelles aucune catégorie grammaticale n'est obligatoirement marquée sont l'exemple même de l'absence de différence entre la capacité morphologique des propositions principales et celle des subordonnées : on ne peut observer de différence dans la présence de catégories obligatoires sur les formes verbales. C'est le cas en cantonais<sup>4</sup>, avec par exemple les syncrétismes postposition/subordonnant de *zi1cin4* « avant », et préposition/subordonnant de *jan1wai6* «à cause de, parce que ».

*cantonais* (Matthews et Yip, 1994, p.295-299)

(5)	(hai2)	san1	lin6	<b>zi1cin4</b>	<u>postposition</u>
		at	new	year	<b>before</b>
		before New Year			
(6)	(hai2)	ngo5dei6	zau2	<b>zi1cin4</b>	<u>subordonnant</u>
		at	we	leave	<b>before</b>
		before we leave			
(7)	<b>jan1wai6</b>	si4gaan1	gwaan1	hai6	<u>préposition</u>
		<b>because</b>	time	relationship	
		due to time considerations			
(8)	<b>jan1wai6</b>	si4gaan1	m4	gau3	<u>subordonnant</u>
		<b>because</b>	time	not	enough
		because time is not sufficient			

Les propositions en (6) et (8) ne sont pas distinctes d'autres types de subordonnées, comme les conditionnelles, ni même des principales.

<sup>4</sup> Les exemples sont transcrits dans le système de romanisation JyutPing.

On trouve également ce type de subordonnées (des propositions finies, avec l'ordre des mots habituel, introduites par un morphème fonctionnant par ailleurs comme adposition) dans des langues de types morphologiques très divers : anglais, créole antillais, fon, newari, laz... Cette situation n'est donc pas nécessairement liée à une morphologie « pauvre ».

*créole antillais* (Hazaël-Massieux, 2004)

- (9) **dépi** bonmatin-la-sa préposition  
 depuis ce.matin
- (10) i ka palé-moin **dépi** moin ka palé-li. subordonnant  
 Il me parle **depuis** que je lui parle.

*fon* (Lambert, communication personnelle)

- (11) é yĩ **káká** Lyónù. préposition  
 3SG.S aller **jusqu'à** Lyon  
 Il est allé jusqu'à Lyon.
- (12) ví ó ðù nú **káká** é jè àzòn. subordonnant  
 enfant DEF manger chose **jusqu'à.ce.que** 3SG.S tomber maladie  
 L'enfant a mangé jusqu'à ce qu'il tombe malade.

Dans tous ces cas de syncrétisme où l'élément considéré peut introduire soit un groupe nominal, soit une proposition de forme comparable à une proposition indépendante, nous considérerons que nous avons affaire à un cas de polyfonctionnalité du marqueur introducteur.

## 2. PROPOSITIONS FINIES AVEC UNE MARQUE DE DÉPENDANCE INTRODUITES PAR UNE ADPOSITION: DES CAS D'ASYMÉTRIE POSITIVE

Dans certaines langues de l'échantillon où le verbe de la subordonnée est fini, la présence de l'adposition ne suffit pas à marquer la proposition qu'il introduit comme dépendante. La dépendance est marquée par un morphème supplémentaire, soit situé à la marge de la proposition, soit sur le verbe même de la proposition dépendante.

### 2.1. Marque de dépendance à la marge de la proposition

Le français possède de nombreuses subordonnées circonstancielles introduites par des morphèmes fonctionnant par ailleurs comme prépositions (*pour, pendant, depuis, jusqu'à, avant, après, dès, malgré...*) suivis du morphème *que*.

- (13) **Pendant que** la viande cuit, coupez les champignons en rondelles. subordonnant

Plutôt que de parler en termes de « locution conjonctive », considérons que nous avons affaire ici fondamentalement (ou historiquement) à une préposition, ici *pendant*, dont la fonction originelle est d'introduire des éléments nominaux,

suivie d'un *que* complémenteur, c'est-à-dire un morphème rendant possible l'insertion d'une proposition dans une position nominale.

Un cas équivalent se rencontre en nêlêmwa, avec la présence d'une conjonction *me* dans certaines subordonnées à verbe fini, par exemple avec *habuk* « avant ».

*nêlêmwa* (Bril, 2002)

- (14) hla u taa the maaxi **habuk me** hla ya mwa.  
 3PL ACC STAT couper paille **avant** DÉPEND 3PL couvrir maison  
 Ils ont d'abord coupé la paille avant qu'ils ne couvrent la maison. subordonnant

## 2.2. Marque de dépendance sur le verbe

Le français illustre aussi le cas où la marque de dépendance est présente sur le verbe, sans pour autant en faire une forme non finie. En effet, le subjonctif est essentiellement utilisé dans des propositions dépendantes.

- (15) Je lui ai envoyé de l'argent **pour** qu'il puisse acheter son billet. subordonnant

Cependant, il ne présente pas une combinatoire morphologique foncièrement différente du verbe fini de l'indépendante : indice de personne, possibilité de prendre des arguments et des modifieurs, négation, voix, système de temps certes plus réduit et non autonome vis-à-vis de la principale.

On trouve un système comparable dans les subordonnées du grec moderne introduite par des prépositions comme *για* « pour », *μέχρι* « jusqu'à » et *πριν* « avant » (16) (E. Valma, communication personnelle). Ces prépositions, quand elles introduisent une proposition, sont suivies de la particule *va*, puis d'une forme modale du verbe (17). Cette forme du verbe est pourvue d'un indice de personne, peut être niée, mais est plus contrainte que le verbe d'une proposition indépendante en termes de combinaison des thèmes et des conjugaisons, donc en ce qui concerne l'expression du temps et de l'aspect. On dira alors qu'on a affaire à une forme dépendante du verbe, mais une forme finie.

*grec moderne* (Valma, communication personnelle)

- (16) **Πριν** το φαγητό, préposition<sup>5</sup>  
**avant** ART.NEUTR.SG.ACC repas.SG.ACC  
 πλένουμε τα χέρια.  
 laver.1PL.PRÉS ART.NEUTR.PL.ACC mains.NEUTR.PL.ACC  
 Avant le repas, on se lave les mains.
- (17) **Πριν** να φάμε, subordonnant  
**avant** que manger.1PL.MOD.ACCOMPL  
 πλένουμε τα χέρια.

<sup>5</sup> Selon les ouvrages de référence sur le grec moderne, « Πριν » est considéré comme une préposition, un adverbe, ou les deux.

laver.1PL.PRÉS ART.NEUTR.PL.ACC mains.NEUTR.PL.ACC  
 Avant de manger, on se lave les mains.

### 3. NOMINALISATIONS INTRODUITES PAR UNE ADPOSITION: DES CAS D'ASYMÉTRIE POSITIVE

Une autre stratégie consiste à marquer de manière nette (morphosyntaxique) la faculté d'une proposition à remplir des positions typiquement nominales, c'est-à-dire celle d'argument du prédicat ou celle d'oblique, notamment d'objet d'adposition pour la question qui nous intéresse ici. La proposition dite « nominalisée » a alors à la fois des caractéristiques hybrides des verbes et des noms. Plusieurs langues sont concernées dans notre échantillon, telles le latin, le yagua, le tariana, le sikuani, le lezgi, le turc. Nous commencerons par illustrer la nominalisation avec l'exemple du lezgi, où la co-existence de caractéristiques nominales et verbales semble claire. A travers d'autres exemples, nous montrerons les diverses caractéristiques nominales que l'on peut trouver dans ces nominalisations comme complément d'adpositions.

En lezgi (Haspelmath, 1993), comme dans de nombreuses autres langues caucasiennes, la subordination circonstancielle utilise différents moyens, dont les principaux sont l'usage de converbes et celui de postpositions gouvernant des propositions de type participe substantivisé ou Masdar (nominalisation d'action). Ainsi, en (18) la postposition *patal* « pour » s'ajoute à un syntagme nominal et en (19), à une nominalisation (Masdar).

*lezgi* (Haspelmath, 1993, ex. 539, 1080)

- (18) Xatimat k'wal **patal** q<sup>h</sup>san dišehli tir. préposition  
 Xatimat house **for** good woman COP:PST  
 Xatimat was a good woman for the house.
- (19) Ada-z Ali amuq'-un **patal** wuč iji-da-t'a čī-zwa-č-ir.subordonnant  
 he-DAT [[Ali stay-MSD **for**] what do-FUT-CND] know-IMPF-NEG-PST  
 He did'nt know what to do in order for Ali to stay.

Le Masdar est une nominalisation d'action qui a une syntaxe « externe » nominale, par sa distribution et sa compatibilité avec les marques casuelles mais une syntaxe « interne » verbale, le verbe recevant des adverbes et des arguments comme dans une proposition finie. Dans ce cas-là, on a alors affaire à des formes verbales dépendantes comparables formellement aux formes verbales indépendantes : elles ont la même combinatoire morphologique et régissent leurs arguments de manière similaire.

Nous présentons maintenant diverses caractéristiques nominales que l'on peut trouver dans ces nominalisations comme compléments d'adpositions.

#### 3.1. Morphologie casuelle sur la nominalisation

Les exemples latins suivants montrent l'utilisation des cas pour l'intégration des gérondifs comme compléments de postposition.

- (20) legit **ad** disc-énd-um. subordonnant  
 il.lit **pour** apprendre-GER-ACC  
 Il lit pour apprendre.
- (21) **ex** leg-énd-o voluptát-em capit. subordonnant  
**de** lire-GER-ABL plaisir-ACC il.tire/prend  
 Il prend plaisir à lire. (Litt : Il tire son plaisir du fait de lire.)

### 3.2. Marquage du groupe nominal « sujet » et indices de personne

Dans de nombreux cas, l'alignement des noms déverbaux sur la morphologie nominale leur fait perdre les indices de personnes verbaux, mais ils peuvent parfois prendre des indices personnels tirés de la morphologie nominale (possessifs), et/ou voir leur « sujet » marqué au génitif, comme un complément du nom. Ainsi, les gérondifs anglais ont, dans une syntaxe plutôt classique, leur agent au génitif :

- (22) I disapprove **of my daughter's** smoking. subordonnant  
 (23) I am tired **of his** watching golf on TV. subordonnant

L'exemple du turc est plus complexe. En turc, les propositions circonstancielles sont exprimées à l'aide de nombreux types de noms déverbatifs. Lorsque la proposition nominalisée est intégrée dans la phrase par l'intermédiaire d'une postposition, le sujet est alors toujours au cas absolu (non marqué). Dans certaines combinaisons de noms verbaux suivis de postpositions, la personne est indiquée par un suffixe de personne nominal sur le nom verbal (25).

*turc* (Bazin, 1987, p.142)

- (24) ben git-tik-ten **sonra**, kapı-yı kapat-acak-sınız.  
 PRO.1SG partir-NOMN-ABL **après** porte-ACC fermer-INT-S2PL  
 Après que je serai parti, vous fermerez la porte. subordonnant
- (25) Mehmet gel-diğ-i **için**, gid-ip o-nu gör-dü-m.  
 Mehmet venir-NOMN-3SG **pour** voir-GER PRO.3SG-ACC aller-PARF-1S.SG  
 Puisque Mehmet est venu, je suis allé le voir. subordonnant

Autour de ce cas précis, une généralisation peut être introduite sur l'usage de ce type de morphologie nominale : « In languages where the head noun in possessive noun phrases agrees with the possessor noun, non-finite verb forms may take the nominal agreement markers. » (Koptjevskaja-Tamm, 1999, p. 148).

### 3.3. Marque de genre/classe

En sikuaní (Queixalós, 2000), deux types de nominalisations peuvent former des subordonnées circonstancielles avec des suffixes nominaux ou des postpositions : la nominalisation proprement dite (26) et la semi-nominalisation

(27). On les distingue selon leur caractère plus ou moins nominal, notamment la présence ou non d'un suffixe de genre/classe.

*sikuani* (Queixalós, 2000, p. 299)

- |      |   |                     |
|------|---|---------------------|
| (26) | ta-ka-konitsi- <u>nü</u> - <b>xæ</b><br><i>dépendance I-actant II2-fouetter-masculin-causalité</i><br>à cause de moi en tant que fouetteur de toi | <u>subordonnant</u> |
| (27) | ta-ja-konitsi- <b>xæ</b><br><i>dépendance I-actant II2-fouetter-causalité</i><br>parce que je te fouette (litt. parce qu'il y a moi-te-fouettant) | <u>subordonnant</u> |

Les quelques types de nominalisations illustrés ci-dessus dans quelques langues montrent une grande diversité sur le plan de la nature et du nombre de leurs caractéristiques nominales. Rappelons que dans une vision non discrète des parties du discours (telle que celle développée par Sasse, 2001), verbes nominalisés, infinitifs, gérondifs et participes sont à placer sur un continuum entre noms et verbes. Une autre approche consiste à considérer que l'on a affaire à des catégories mixtes héritant à la fois de traits nominaux et de traits verbaux (Cf. notamment Malouf 2000).

Dans ces cas de nominalisations introduites par des adpositions, il n'apparaît pas complètement nécessaire d'analyser le morphème introducteur comme un subordonnant. En effet, la proposition qu'il introduit étant marquée comme l'équivalent d'un groupe nominal, la distribution et la fonction de ce morphème restent bien celles d'adposition, qui peut régir entre autres groupes nominaux, une proposition nominalisée.

#### 4. AUTRES CAS DE PROPOSITIONS NON FINIES INTRODUITES PAR UNE ADPOSITION: DES CAS D'ASYMÉTRIE NÉGATIVE

A côté de ces divers types de nominalisations, la dépendance est souvent marquée par une forme particulière du verbe caractérisée par une morphologie nettement déficiente, c'est-à-dire plus réduite que celle des formes verbales indépendantes : c'est ce qu'on appelle une forme non finie du verbe. Givon (1990 : p. 852-891) liste les points à observer pour déterminer le degré de finitude : TAM, accord pronominal, affixes nominalisants, cas du sujet et de l'objet, articles et déterminants. Très souvent, la morphologie déficiente des formes verbales non finies est corrélée au fait que ces formes ne peuvent normalement pas être le prédicat de propositions indépendantes : on dit alors qu'on a affaire à une proposition dépendante non finie. Ainsi, pour Bisang (2001), si la finitude est une caractéristique des propositions, elle participe aussi à la grammaire de la connectivité inter-propositionnelle. Ces formes sont classées dans les cas d'asymétrie négative par Bisang, de par l'omission dans la subordonnée de catégories qui sont obligatoires dans la principale, et cela même si une marque de subordination étiquette explicitement ces formes comme dépendantes (Bisang, p. 1405).

Les formes non finies du verbe traitées dans cette partie sont moins nettement « nominales » que celles de la section précédente, et nous nous attacherons surtout à montrer la variation possible dans la présence ou l'absence des catégories verbales.

#### 4.1. Marquage du temps et de l'aspect

Plusieurs langues de notre étude (comme le hup ou le rama) montrent que la seule caractéristique qui sépare les subordonnées introduites par des adpositions des propositions principales est l'absence de marque de temps. Ainsi, en rama, le verbe de la principale est obligatoirement marqué pour le temps, alors qu'aucune marque de temps ne peut apparaître dans une subordonnée introduite par une postposition<sup>6</sup>.

*rama* (Craig, ex. 3 p. 459 et 19 p. 469)

- (28) namangkũ kruubu tabi-i amaing.  
maintenant tigre sortir-TNS encore  
Maintenant, le tigre sort de nouveau.
- (29) kruubu tamaaski ui tabi-i kumaa i-sung-bang.  
tigre matin chaque venir-TNS femme 3-voir-SUB  
Le tigre vient tous les matins pour voir la femme.

En *maa* (Payne, 2004), les subordonnées introduites par la préposition *tè* (31) sont formellement identiques aux constructions en chaînes (30), identifiées par le préfixe *n(H)*<sup>7</sup>. Ce qui rend ces propositions non finies, quoique de manière peu saillante par rapport à d'autres types de propositions, c'est l'absence d'indépendance dans le marquage de l'aspect.

*maa* (Payne, 2004, ex. 22 et 29)

- (30) **n-ε-í**m εnk-áí **n-é-dù**Ñ e-saéí  
CN-3-pass FSG-another.ACC CN-3-cut FSG-bead.AC  
**n-é-íta-dó-í**kí e-múrt  
CN-3-CAUSE-drop-DAT FSG-neck.ACC  
he passed another one, he cut a beads-necklace, and he put it on his neck...
- (31) **Té ní-mí-kí-ndí**m a-íshɔɔ̃ éíê kítéŋ obô,... subordonnant  
OBL CN-NEG-2>1-able INF.SG-give this cow.ACC one ...  
If you can not give me this bullock, ...

#### 4.2. Marquage des personnes et présence d'un groupe nominal sujet

Dans de nombreuses langues, les formes non finies sont caractérisées par l'absence de variation de personne sur le verbe. A cette absence de variation de

<sup>6</sup> Alors qu'avec la seule conjonction de subordination sans relation avec une postposition (*kaing*, parce que), le verbe porte toute sa flexion (Craig, note 10 p. 489).

<sup>7</sup> H représente un ton haut.

personne, s'ajoute souvent un traitement particulier du sujet. Ainsi les formes verbales non finies sont souvent caractérisées par l'absence d'un argument sujet explicite dans les langues de l'échantillon (fon, français, anglais, ...). Le sujet implicite est contrôlé par un argument de la principale.

*fon* (Lambert, communication personnelle)

- (32) víó ðù nú káká jè àzòn. subordonnant  
 enfant DEF manger chose jusqu'à tomber maladie  
 L'enfant a mangé jusqu'à tomber malade.

(33) Les salariés ont voté **pour** élire leurs délégués. subordonnant

(34) He lied **to** protect his father. subordonnant

(35) **After** eating dinner, he went to bed. subordonnant

Le portugais connaît une forme d'infinitif fléchi. Malgré ses caractéristiques nominales, l'infinitif portugais peut admettre un sujet présent comme groupe nominal et une marque d'accord. Voici un exemple d'un infinitif fléchi après la préposition *sem* :

*portugais, Vincent 1999, ex. 9d p. 355*

- (36) A Maria entrou em casa **sem** eles ouvir-em.  
 ART Marie entrer-PASSE dans maison sans ils entendre-S3PL  
 Marie est entrée dans la maison sans qu'ils l'entendent. subordonnant

##### 5. PROPOSITIONS AVEC TRANSLATIF : UN CAS INCLASSABLE ?

Dans certaines langues, une proposition a besoin d'une marque spécifique pour pouvoir être introduite par une adposition, mais cette marque n'est pas un simple « nominalisateur », car elle est aussi nécessaire avec les éléments nominaux, notamment pour constituer des objets d'adpositions. Suivant la terminologie de Lemaréchal (1994), on parlera de « translatif substantivant ». C'est-à-dire qu'un syntagme qui n'est pas a priori un « substantif » (c'est-à-dire ni un nom propre, ni un pronom, ni un démonstratif) doit être « translaté » pour servir d'actant. Les propositions et la plupart des syntagmes nominaux sont alors traités de manière similaire pour servir d'objets d'adpositions. C'est ainsi le cas en tahitien (Vernaudon et Rigo, 2004), où pour construire une subordonnée complétive oblique, il faut insérer l'article *te* entre d'une part la préposition *i* et d'autre part un groupe nominal ou une proposition, qui ne contient alors ni sujet explicite, ni marque de TAM.

*tahitien* (Vernaudon, communication personnelle)

- (37) Ua fiu roa 'ōna i te i'a. préposition  
 ACC lassé très 3SG **PREP** ART poisson.  
 Il en a vraiment assez du poisson.
- (38) Ua fiu roa 'ōna i te 'amu i te i'a. subordonnant  
 ACC lassé très 3 SG **PREP** ART manger PREP ART poisson.  
 Il en a vraiment assez de manger du poisson.



Un cas similaire est observé en émérillon, où l'on observe un morphème *-a* cliticisé à la proposition et suivi du subordonnant, clitique que l'on retrouve par ailleurs également sur un groupe nominal introduit par la postposition correspondante.

*émérillon* (Rose, 2003, ex. 1351 p. 530 et 1352 p. 531)

- |      |   |                                       |                     |
|------|---|---------------------------------------|---------------------|
| (39) | aman-a-l-aʔil-a-te                                      | o-ʔal-a-l- <b>ehe</b> ,...            | <u>subordonnant</u> |
|      | pluie-a-RELN-fils-a-FOC                                 | 3.I-tomber-a- RELN - <b>parce.que</b> |                     |
|      | parce que c'était le fils de la pluie qui était né, ... |                                       |                     |
| (40) | o-sisig-a-l- <b>ehe</b>                                 | o-zebaladʒ.                           | <u>postposition</u> |
|      | 3.COREF-soeur-a- RELN - <b>avec</b>                     | 3.I-jouer                             |                     |
|      | Il joue avec sa sœur.                                   |                                       |                     |

Ce *-a* aurait pu jouer à un état initial « omniprédicatif » de la langue (et même dans l'ensemble des langues de la famille tupi-guarani) un rôle de translatif, permettant à tous les lexèmes pouvant prédiquer de référer, et donc sur le plan syntaxique d'être utilisés comme substantif (Queixalós, 2001).

Dans ce cas où c'est un morphème translatif qui permet à la fois aux groupes nominaux et aux propositions de prendre la fonction de complément d'une adposition, il est difficile de trancher pour une analyse comme symétrie marquée (les dépendantes diffèrent des principales par la présence du morphème translatif), ou comme asymétrie (ce morphème translatif est de toute manière nécessaire aussi avec les groupes nominaux, et participe autant à la construction du groupe prépositionnel que de la dépendance interpropositionnelle). L'adposition peut alors être vue soit comme polyfonctionnelle, la médiation opérée par le « translatif » lui donnant la possibilité d'introduire aussi bien des propositions que des éléments nominaux, soit comme ayant une fonction unique d'adposition, le « translatif » faisant des propositions comme des groupes nominaux des « substantifs ».

#### CONCLUSION

Nous avons observé une grande diversité des subordonnées introduites par des adpositions, aussi bien sur le plan interlinguistique que intralinguistique, et ce sur un continuum entre des formes plus nominales et d'autres plus verbales.

Dans certaines langues, l'égalité de distribution des propositions finies et des syntagmes nominaux permet de poser une symétrie entre propositions subordonnées et indépendantes, alors que dans de nombreuses autres langues, la proposition doit être marquée comme dépendante pour former une subordonnée : on a alors une asymétrie positive ou négative. Reste à renforcer cette typologie en la mettant à l'épreuve d'une plus grande variété de langues.

Que doit-on alors en conclure sur le syncrétisme adposition/subordonnant ? Distinguons trois cas. Si un groupe nominal et une

proposition subordonnée tous deux introduits par le même morphème sont clairement différenciables, ce morphème sera alors caractérisé comme polyfonctionnel, la polyfonctionnalité étant connue comme une caractéristique relativement fréquente des subordonnants circonstanciels (les conjonctions adverbiales dans Kortmann, 2001). Si en revanche les deux structures sont rendues comparables dans cette position (par exemple par un net phénomène de nominalisation, ou par la médiation d'un complémenteur), ce morphème pourra être décrit comme ayant une fonction unique d'adposition. Enfin, dans les cas où la proposition introduite par le morphème syncrétique est marquée comme dépendante (par une forme dépendante subjonctive ou non finie par exemple), tout un panel de cas intermédiaires entre la nominalisation (fonction unique d'adposition) et la subordonnée finie (polyfonctionnalité) est envisageable, et l'analyse est donc à circonstancier.

Au-delà de ces trois cas, il est possible qu'on ait parfois affaire à un cas de réanalyse de l'adposition et de son groupe « nominalisé » en un subordonnant introduisant une proposition subordonnée. C'est finalement ce dernier cas qui apparaît comme particulièrement intéressant: en effet, les propositions finies sont les moins attendues dans cette position de compléments d'adposition. Quelques exemples de réanalyse de formes non finies en formes finies (newari, Genetti 1991 ; laz, Harris & Campbell 1995, émérillon, Rose 2003) suggèrent tout l'intérêt que pourrait avoir l'étude d'un tel cas, montrant le passage entre deux des types de subordonnées introduites par une adposition proposés dans cette typologie.

## ANNEXE

langue	famille	source bibliographique
äiwoo	papou ?	A. Naess, com. pers.
anglais	germanique, indo-européen	
arménien	arménien, indo-européen	A. Donabédian, com.pers ; Donabédian 2005
bedja	couchitique	M. Vanhove, com.pers.
Caribbean English Creoles	créoles de base anglaise	Winford 1993
chadic	chadic, afro-asiatique	Frajzyngier 1996
chinois cantonais	sino-tibétain	S. Matthews, com.pers.
créole antillais	créoles de base française	M-C Hazaël-Massieux, com.pers. ; Hazaël-Massieux 2004
dialectes bulgares et macédoniens de Grèce	slave, indo-européen	E. Adamou, com.pers.

fon	kwa, niger-congo	R. Lambert, com.pers. ; Lefebvre & Brousseau 2002
français	roman, indo-européen	
godoberi	nord-caucase	Kibrik 1996
grec moderne	indo-européen	E. Valma, com.pers.
hup	maku	P. Epps, com. pers.
japonais	japonais	Martin 1975
kiranti	tibéto-birman	Bickel 1999
langues australiennes		Austin 1981 Dixon 2002
latin	indo-européen	
laz	kartvelien	Harris & Campbell 1995
lezgi	nord-caucase	Haspelmath 1993
maa	nilo-saharien	D. Payne, com. pers. ; Payne 2004 ; Payne & Ole-Koikash 2005
mwotlap	océanien, austronésien	A. François, com.pers.; François 1991
nêlêmwa	océanien, austronésien	I. Bril com. pers. ; Bril 2000 et 2002, com. pers.
newari	bodique, tibéto-birman	Genetti, 1991
portugais	roman, indo-européen	Vincent 1999
rama	chibcha	Craig 1991
sikuani	guahibo	F. Queixalós, com. pers.; Queixalós 2000
tahitien	océanien, austronésien	J. Vernaudo com. pers. ; Vernaudo et Rigo 2004
tariana	arawak	A. Aikhenvald, com. pers ; Aikhenvald 2003
tswana	niger-congo	Creissels 2005
turc	turc, altaïque	Akinci, com. pers. ; Bazin 1987
yagua	peba-yagua	Payne & Payne 1990



## **When vowel deletion blurs reduplication in Mojeño Trinitario**

*(Version to be revised before publication)*

### **1. Introduction**

This paper discusses the process of reduplication in the Trinitario dialect of Mojeño, an Arawak language spoken in the Bolivian lowlands. Trinitario primarily displays partial reduplication of the verb, expressing repetition or attenuation.

The Mojeño language (previously called Moxo) consists of 4 dialects: Trinitario, Ignaciano, Loretano and Javierano. The total Mojo population is over 32,000, with around 3,220 speakers of Trinitario and Ignaciano (Crevels and Muysken 2009). Trinitario and Ignaciano are endangered languages, while Javierano is moribund with approximately five (semi-)speakers. Loretano is extinct. There is no linguistic description of Javeriano and Loretano. Both Ignaciano and Trinitario have been previously described (Olza Zubiri, et al. 2002 and Gill 1957 respectively). Both dialects are in general very similar but for the pervasive vowel deletion process affecting Trinitario (Rose 2008, to appear).

In this paper, <sup>1</sup> I revise the traditional analysis of Trinitario reduplication patterns in the light of the prosodic rule of vowel deletion. The analysis presented in this paper is based on both the author's field data and examples given in Gill's presentation of reduplication (Gill 1957: 117-118). The field data on Trinitario was collected by the author in Trinidad and San Lorenzo de Moxos between 2005 and 2008. The resulting database consists of 30 texts totaling almost 2,000 sentences. Several hundred elicited sentences were added to this database. This data and Gill's work generally concur on major patterns but complete each other as far as minor patterns are concerned. This will be discussed later. All examples, mine and Gill's, are transcribed using IPA.

After some background information on Trinitario (Section 2), the functions of reduplication as defined by Gill will be presented with some additional commentary (Section 3). The remainder of the paper will analyze the details of the phonological patterns of reduplication and the morphological status of the copy (Section 4). In particular, the influence of reduplication on stem morphology will be investigated. Moreover, the account of vowel deletion in reduplication allows the revision of Gill's analysis and leads to identifying a second pattern of reduplication implying a double-copy. This analysis is more coherent with the overall system of the language insofar as it provides a single analysis of both stem and affixes allomorphy and multiple reduplication processes.

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<sup>1</sup> This paper has very much benefited from comments by Christian DiCanio.

## 2. Background information

### 2.1. The structure of the verb

Mojeño Trinitario is a polysynthetic language. The verb morphology is rich both at the derivational level (stem-internal) and at the inflexional level (stem-external). As a consequence, the verb structure is morphologically complex (Figure 1), with many prefixes and suffixes. The root itself generally consists of two or three syllables.

Figure 1. Structure of the Mojeño verb

1/2/3-IRR-	CAU-root~RED-CLF/N-PLURAC-ACT/CAU/APL	-IRR-MID/1/2/3-PL-TAM-RPT-D
------------	---------------------------------------	-----------------------------

Reduplication occurs in the slot indicated in Figure 1 above. The stem, delimited by the central box in Figure 1, contains one prefix slot and several suffix slots. The presence of reduplication affects two of these slots, in a manner that will be specified later on. These two slots are now presented.

First, the active suffix (*-ko ~ -cho ~ -?o*) is used to mark active stems. Table 1 illustrates the behavior of the active suffix with respect to the two different classes of active stems. Active verbs of the major class always carry this suffix, as exemplified with *xajno-ko*. Active verbs of the minor class (all with root-final /o/, exemplified with *xikpo*) take the active suffix obligatorily when carrying a stem-internal suffix, like the pluractional *-ri*. Otherwise, when carrying no suffix or a stem-external suffix (such as *-nu*, 1<sup>st</sup> singular object), they do not take the active suffix.

Table 1. The active suffix on the two classes of active stems

root	with no suffix	with external-stem suffix	with internal-stem suffix
<i>xajno</i>	<i>n-xajno-ko</i>	<i>c-xajno-k(o)-nu</i>	<i>c-xajno-ri-ko</i>
'watch'	'I watch'	'he/she/it watches me'	'he/she/it always watches'
<i>xikpo</i>	<i>n-xikpo</i>	<i>c-xikpo-nu</i>	<i>c-xikpo-ri-ko</i>
'answer'	'I answer'	'he/she/it answers me'	'he/she/it always answers'

Second, some classifiers are found within the verb stem. On stative or active intransitive verbs, they refer to the subject, as shown in (1) and (2) respectively. On transitive verbs, they refer to the object as shown in (3).

(1) *eto c-xítu-mo.*

PRO3NH 3-thin-CLFthin.flexible

It is thin (for example, some fabric).

(2) *t-ewara-s(i)-ko*

3-break-CLFround-ACT

It broke (for example, a round stone).

(3) *n-jere-pa-re-ko*

*mótexi.*

1SG-carry-CLFgrain-PLURAC-ACT

earth

I am carrying earth.

Like all stem-internal suffixes, object classifiers make the active suffix obligatory on the verbs (all transitive verbs are active).

(4) *n-omo*

*/n-om(o)-xi-ko*

1SG-carry

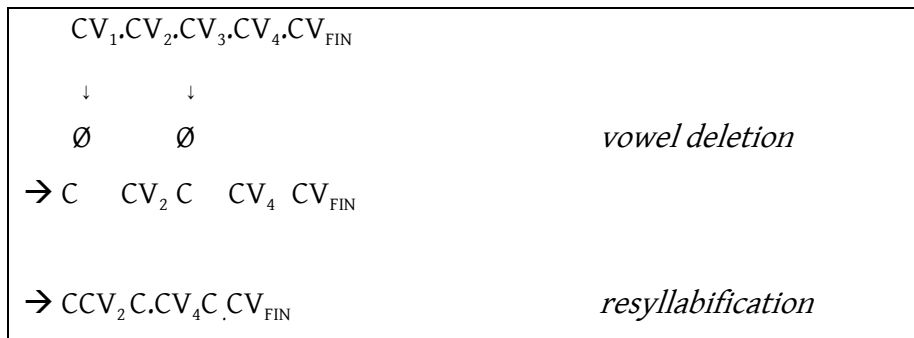
*/1SG-carry-CLFbulk-ACT*

I am carrying it / I am carrying it (vegetal, clothing...).

## 2.2. Vowel deletion

Vowel deletion is quasi systematic on stems of three syllables or more in Trinitario.<sup>2</sup> It generally affects the initial vowel of a prosodic word,<sup>3</sup> and then every other vowel to the right, the final one always being excepted.

Figure 2. Rhythmic vowel deletion.



<sup>2</sup>The precise circumstances in which vowel deletion occurs are not detailed in this paper.

<sup>3</sup>If the first syllable is a member of a subset of person prefixes, *ma-*, *ñi-*, *ta-* or *na-*, the vowel of this syllable is maintained (and vowel deletion follows as if it were deleted, affecting the third vowel of the word and every other one to its right).

This process is probably the result of a former rhythmic stress on every second syllable. In synchrony, stress normally falls on the penultimate syllable of the word (with some lexical exceptions and some extrametrical suffixes).

As a result of vowel deletion, almost all roots and affixes have two forms, since according to their position within the prosodic word, they will lose different vowels.<sup>4</sup> Examples are given in Table 2.

Table 2. Vowel deletion in Trinitario

Morphological structure <sup>5</sup>	Phonological output	Translation
<i>pokure</i>	<i>pkure</i>	canoe
<i>sV-pokure</i>	<i>spokre</i>	her canoe
<i>nV-tfokojo</i>	<i>ntfokjo</i>	I am close
<i>nV-ko-tfokojo</i>	<i>nkotfkojo</i>	I got close
<i>ti-koxuma</i>	<i>tkojma</i>	he/she/it is sick
<i>ti-a-koxuma</i>	<i>takjuma</i>	may he/she/it be sick

A consequence of vowel deletion is compensatory vowel lengthening. Certain consonants, such as /r/, are not permitted in coda position. Vowel deletion results in stranding the consonant originally followed by this vowel. If this consonant is not permitted in coda position, it is deleted and the preceding vowel is compensatorily lengthened. This process is schematized in Figure 3 and exemplified with the sequence *ripo* of *poriropa* 'needle' (segments in parenthesis are not directly relevant here). Table 3

<sup>4</sup> Gill does not mention vowel deletion. In his work, there are two different classes of roots calling for different allomorphs of the suffixes. Once suffixed, roots can belong to a different class and call again for different allomorphs of suffixes. Moreover, prefixes themselves call for different forms of the roots.

<sup>5</sup> The symbol V is used in the morphological structure for a vowel the quality of which synchronic data do not give evidence for.



illustrates cases where a vowel following /r/ is dropped. It shows that /r/ is also deleted and a process of compensatory lengthening occurs.

Figure 3. Compensatory lengthening in Trinitario

		CV1rV2	(po)riro(pa)
1)	V2	CV1r	(p)rir(pa)
2)	r		
	V1 V1:	CV:	(p)ri:(pa)

Table 3. Compensatory lengthening in Trinitario

Morphological structure	Phonological output	Translation
<i>poriropa</i>	<i>pri:pa</i>	needle
<i>sV-poriropa</i>	<i>spo:ropa</i>	her needle
<i>-xuru-ko-ri?i</i>	<i>xu:ko: ?i</i>	grow
<i>-korVto-ko-ri?i</i>	<i>ko:tokri?i</i>	grab

### 3. The functions of reduplication

Verb reduplication in Trinitario is a purely morphological process, which does not influence the syntactic structure of the clause.<sup>6</sup> It never affects the argument structure of the verb, whether it be transitive or intransitive, active or not. Its effect is purely derivational, modifying the meaning of each specific verb root in a regular way.

Reduplication has been briefly described as conveying three possible meanings in Trinitario (Gill 1957:217):

- 1) lessen the intensity of the action
- 2) increase the frequency of the action
- 3) lessen the intensity of the action *and* increase the frequency of the action.

<sup>6</sup>Olza mentions that reduplication occurs on nouns, adjectives (verbs, in my analysis), question words and quantifiers in the Ignaciano dialect. Concerning the Trinitario dialect, these cases are particularly marginal in my corpus, and are not mentioned in Gill's work.

### 3.1. Attenuation

The first meaning of reduplication in Mojeño is attenuation, conveying a desintensifying or approximative reading. My corpus study shows that reduplication is most often found with stative predicates like the verb *ixre* 'be hot' in (5) and the adjective *riko* 'rich' in (6). It can however also be found on active verbs such as *sopo* 'believe' (7) and *it(u)-ko* 'to know/learn' (8).

(5) *t(i)-ixre~re-xi*  
 3-be.hot~RED-CLFbulk  
 It is warm (medium hot).

(6) *rik(o)~koko*  
 rich~RED2  
 He is sort of rich.

(7) *p(i)-sop(o)~po-x(i)-ko-nu*  
 2SG-believe~RED-CLF-ACT-1SG  
 You half believe me.

(8) *ma-(o)muiremw-et(u)~tutu-pi-ko*                      *to*                      *(i)-etfxiri:wo.*  
 3M-too            3M-know~RED-CLFlong.flexible-ACT    ART.NH    1PL-language  
 He too knows a bit our language.

### 3.2. Repetition : event-internal plurality

The second meaning of reduplication in Mojeño is repetition. A systematic study of my corpus examples shows that, contrarily to the attenuative meaning, the repetitive meaning is found exclusively on active verbs.

(9) *na-yusti~ti-ji-ko*  
 3PL-cut~RED-CLF-ACT  
 They chopped it.

(10) *ene ta-evi~vi-k-ri'i*                      *to*                      *tektikwo.*

and 3NH-swing~RED-ACT-*ri'i*    ART.NH    wind  
 The wind makes it move (a scarecrow).

Reduplication with a repetitive meaning does not entail plurality of the arguments. Examples (9) and (10) show both singular subjects and singular objects with reduplicated verbs. In fact, Trinitario reduplication denotes exclusively a repetitive action within the same event frame (event-internal plurality, in Cusic's terms (Cusic 1981)). It is not found to express the repetition of the same event at different times, with empty intervals (event-external plurality). Therefore reduplication expresses more specifically aspect rather than verbal plurality, also called pluractionality (Newman 1990, Corbett 2000). Trinitario actually displays a pluractional marker, distinct from reduplication.<sup>7</sup>

### 3.3. Attenuation and repetition

Finally, Gill states that both meanings can be combined in a single example, as in (11). My corpus does not illustrate this. However, the explicit translation of the reduplication process is never self-evident. The determination of the core meaning of each occurrence of reduplication is not an easy task.

(11) *esu t-co-jmá~ma-ji.* Gill 1957: 217

PRO.F 3-VZ-sickness~RED-CLF

She is sickly (not real sick but is often rather sick).

The two meanings conveyed by reduplication, attenuation and repetition, are not semantically unrelated. They can be subsumed under the term "distensivity", coined by Queixalós (2002). Distensivity refers to the possibility of an event being seen as more or less concentrated. Queixalós (2002) illustrates his point with a morphological process in the Sikuni language. The same morphological process expresses opposite positions on different axes: number of participants, imperfective aspect, iterative, effectiveness, patient

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<sup>7</sup> Pluractional markers express the multiplicity of events, more specifically the plurality of participants, time and/or location. In Trinitario, the *-ri* suffix and its allomorphs most often turns the action into an activity (à la Vendler), as illustrated below in (1). The pluractional verb can either affect a plurality of objects at a specific time, or be extended in time with either a durative or an habitual nuance. It could be analyzed as an anti-passive, if it did not allow the verb to remain transitive.

(1) *ma p-íya-eni mu-et-ko t-ipruj-ri-ko*  
 ART.M 2SG-father-PAS 3M-know-ACT 3-cure-PLURAC-ACT  
 My late father knew how to cure (people).

referentiation... Attenuation and repetition are also typical for reduplication (Rubino 2005:19).

#### 4. The forms of reduplication

This section investigates the forms of Trinitario verbal reduplication. It first shows the basic pattern of reduplication (4.1) and discusses its combination with other root suffixes (4.2) such as the classifier *xí* (4.3). Then the effect of vowel deletion on this basic pattern of reduplication is brought to light (4.4). The issue of monosyllabic bases raised by Gill is then discussed (4.5). Finally, a second pattern of reduplication is revealed (4.6).

##### 4.1. The basic pattern

The reduplication process copies the last syllable of the underlying verbal root. The copy immediately follows the root. The copy is part of the verbal stem, as schematized in Figure 4. Table 4 offers illustrative examples.

Figure 4. Mojeño verbal stem structure

CAU-ROOT~RED-CLF/N-PLURAC-ACT/CAU/APL
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Table 4. Trinitario reduplication : the basic pattern

morphological structure of the base	translation of the base	morphological structure of the reduplicated form	phonological output of the reduplicated form	translation of the reduplicated form
<i>mopku</i>	to be dark	<i>ti-mopku~ku- ?i-ritʃʔo</i>	<i>tmopkuku?iritʃʔo</i>	it is still half dark
<i>emare-ko</i>	there is lightning	<i>ti-emare~re-ko</i>	<i>temaréreko</i>	(not translated)
<i>eβero-ko</i>	to lick	<i>ji-eβero~ro-çe- ko</i>	<i>jeveroroçeʔo</i>	he licked the bones
<i>eβ(i)-ko</i>	to swing	<i>ta-eβi~βi-ko- riʔi</i>	<i>taeβiβikriʔi</i>	it swung it
<i>tumma-ko</i>	to be cold	<i>tumma~ma-ko- pripo-ro</i>	<i>tummamakopripo- o</i>	it is getting cold

<i>i:mwi-ko</i>	to dance	<i>ti-i:mwi~mwi-ko-ono</i>	<i>ti:mwimwikono</i>	they dance (in all the ceremonies)
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#### 4.2. The copy as a stem-internal suffix

Since the root-final syllable and its copy are identical, there are logically two possible analyses: either the copy follows the base or it precedes its final syllable. The first analysis is more economical, since the copy can be considered a suffix immediately adjacent to the root rather than an infix for which a slot within the root should be added to the verbal structure. Moreover, this analysis is confirmed by the morphology of reduplicated stems. The copy shows a behavior typical of stem-internal suffixes. It makes the active suffix obligatory on all active stems. This is the case with the verbs of Table 4, all of which do not need the active suffix in absence of stem-internal suffix. In the first two examples, the presence of the active suffix *-ko* can only be attributed to the reduplication process. In the third example, it is also induced by the pluractional *-ri* suffix and in the last example, to the classifier *-ji* also. This property of the copy makes it a stem-internal suffix without any doubt.

Table 4. Trinitario reduplication and the active suffix

morphological structure of the base	translation of the base	morphological structure of the reduplicated form	phonological output of the reduplicated form	translation of the reduplicated form
<i>k(o)emtone</i>	to work	<i>nV-ko-emtone~ne-ko-po</i>	<i>nkemtonnekpo</i>	I worked there and there
<i>amo</i>	to swell	<i>vi-amo~mo-ko-yore</i>	<i>viammo?oyore</i>	we are going to swell up
<i>samo</i>	to listen	<i>ti-samo~mo-ri-ko-ono</i>	<i>tsammorikono</i>	they go to church
<i>soko</i>	to defecate	<i>ti-soko~ko-xi-ko-yore</i>	<i>tsokkojkoyre</i>	it will give her diarrhea

#### 4.3. Reduplication and *xi*

Another property characteristic of the reduplicated stem is the very high frequency of the sequence /*xi*/ ~ /*x*/ after the copy (and before the active suffix on active verbs). It is not obligatory, but most occurrences of reduplication show it. Table 5 provides examples.

Table 5. Trinitario reduplication and -*xi*

morphological structure of the base	translation of the base	morphological structure of the reduplicated form	phonological output of the reduplicated form	translation of the reduplicated form
<i>koxuma</i>	to be sick	<i>ti-koxuma~ma-xi</i>	<i>tkoxmámaxi</i>	(not translated)
<i>esta-ko</i>	to whip	<i>ma-esta~ta-xi-co</i>	<i>mwestataxiko</i>	he often whips
<i>justi-ko</i>	to cut	<i>na-justi~ti-xi-ko</i>	<i>najustitixiko</i>	they chopped it

The sequence /*xi*/ is the form of one of the classifiers described in 2.1. Its semantics are not easy to define. Gill offers the following definition : "-*ji* denotes usually bulky soft objects (grass, leaves, small branches, fresh meat, any cloth material, pillow; also mud, garbage; also clouds)" (Gill 1957: 84). Examples are given below.

(12) *n-su-xi-ko* Gill 1957:84

1SG-fry-CLFbulk-ACT

I fry (fresh meat).

(13) *n-koʔtfa-xi* Gill 1957:84

1SG-be\_dirty-CLFbulk

I am dirty (my clothes).

In my corpus, -*xi* is also used as a derivational morpheme to indicate a place of abundance of something as in (14). The sequence /*xi*/ is also found in the suffix -*xitfa* "well, a lot", analyzed as a single morpheme in absence of an analysis for the sequence /*tfa*/. On the whole, the semantics of /*xi*/ deal with quantity.

(14) *etxo móci-xi*

COP.NH corn-CLFbulk

There is corn (in his field).

The use of /*xi*/ along with reduplication departs from Gill's definition given above. In some examples, like the ones below, there is no bulky object it could refer to in an obvious way.

- (15) *esu seno s-omuire c-u:na~na-xi*  
 PRO3F Lady 3F-also 3-be.beautiful~RED-CLF  
 This Lady is also beautiful.

- (16) *mw-esta-ta-xi-ko to wije* Gill 1957: 218  
 3M-whisp~RED-CLF-ACT ART.NH OX  
 He often hits the ox.

For that reason, Gill considers /-*xi*/ to be "part of the reduplication morpheme", but yet considers it an object classifier in some examples (when it retains its full meaning). I systematically consider it as a morpheme separate from the copy, because on the morphological level, it fills the classifier slot, like other classifiers do in (17) and (18). Moreover, no example of reduplicated stem with -*xi* combined with some other classifier is attested.

- (17) *n(i)-evero~ro-çe-ko*  
 3M-lick~RED-CLFbone-ACT  
 He licked the bones.

- (18) *ma-(o)muiremw-et(u)~tutu-pi-ko to (i)-etfxiri:wo.*  
 3M-too 3M-know~RED-CLFlong.flexible-ACT ART.NH 1PL-language  
 He too knows a bit our language.

Yet on the semantic level, it is clear that the meaning of the -*xi* classifier on reduplicated verbal roots is often bleached. It contributes only minimally to the meaning of reduplication, perhaps placing emphasis on the meaning of reduplication. It has become generalized in such a way that it resembles *fixed segmentism* that are obligatory in case of reduplication in some languages. Alderete et al (1999) distinguish two types of fixed segmentism : phonological fixed segmentism when the presence of a default segment is phonologically motivated, and morphological fixed segmentism when an affix is attached to the base concomitantly to reduplication. The Trinitario *xi* could be analyzed as a type of

morphological fixed segmentism since it is not phonologically motivated. It differs from the prototypical examples of morphological fixed segmentism like English *schm*-words (such as *table-schmable*). First, it is not systematically present concomitantly to reduplication. Second it is not overwriting the reduplicant (like *schm*- overwrites /t/ in *table-schmable*).

#### 4.4. Taking into account vowel deletion

A surface variant of the reduplication basic pattern that has not been explained in Gill's work is the following. The process of vowel deletion may have the effect of deleting the final vowel of the root in the reduplicated form of the verb. This is the case if the root-final vowel is the second or the fourth vowel of the root, or the third one on roots unexpectedly stressed on the antepenultimate, as Table 6 illustrates. Since the copy is suffixed to the root (consonant-final in those cases), reduplication surfaces in these cases as a sequence of two identical consonants. As a result, the identity between the copy and the base is not transparent in the phonological output.

Table 6. Trinitario reduplication and vowel deletion

morphological structure of the base	translation of the base	morphological structure of the reduplicated form	phonological output of the reduplicated form	translation of the reduplicated form
<i>amo</i>	to swell	<i>vi-amo~mo-ko-yore</i>	<i>viammo?oyore</i>	we are going to swell up
<i>ko-emptone</i>	to work	<i>nV-ko-emptone~ne-ko-po</i>	<i>nkemtonnekpo</i>	I worked there and there
<i>juxVpani-ko-wo</i>	to ask for a favor	<i>ti-juxpani~ni-ko</i>	<i>tjuxpanniko</i>	she keeps asking for favors
<i>ímoti</i>	to learn	<i>ti-imoti~ti-ko</i>	<i>timottiko</i>	she knows a bit about everything

This result of reduplication does not constitute a different pattern. It is simply the same basic pattern, affected by vowel deletion. The sequence of identical consonants is created by the deletion of the vowel between the two onset consonants of the base-final



syllable and the copy, these two being similar due to the reduplication process. It cannot be analyzed as consonant gemination. If it were a gemination process, then the vowel following the geminate should undergo deletion, as schematized for a two syllable-root in Table 7.

Table 7. Comparison of the vowel deletion and consonant gemination analysis

	this paper	example	alternative analysis	example
input	CV-CVCV	<i>ti-çiwó</i>	CV-CVCV	<i>ti-çiwó</i>
syllable vs. consonant reduplication	CV-CVCV ~CV- <i>ko</i>	<i>ti-çiwowó-xi</i> <sup>8</sup>	CV-CVC<~C>V- <i>ko</i>	<i>ti-çiw&lt;w&gt;ó-xi</i>
vowel deletion	C_-CVC_CV- <i>ko</i>	<i>tçiwwoxi</i>	C_-CVCC_- <i>ko</i>	<i>tçiwwoxi</i>
output	CCVCCV <i>ko</i>	<i>tçí:wóxi</i>	*CCVCC <i>ko</i>	* <i>tçí:wóxi</i>

Vowel deletion can also lead to compensatory lengthening in reduplicated stems, if the consonant left stranded is not allowed in coda position, as is the case for example with /r/ and /w/ in the examples of Table 8. An example is detailed in (20).

Table 8. Trinitario reduplication and compensatory lengthening

morphological structure of the base	translation of the base	morphological structure of the reduplicated form	phonological output of the reduplicated form	translation of the reduplicated form
<i>tfare-ko</i>	to pull up	<i>ma-tfare~re-pue-ko-po</i>	<i>matfa:repuekpo</i>	he pulled them up
<i>çiwó</i>	to rain	<i>ti-çiwó~wó-xi</i>	<i>tçí:wóxi</i>	rainy season (it rains repeatedly)

<sup>8</sup>The absence of the active suffix on this reduplicated active verb is probably due to a mechanism of covert nominalization.

When a reduplicated stem undergoes both vowel deletion and compensatory lengthening, the base and the copy have no surface similarity (compare *tʃa:* and *re or ɕi:* and *wo* in Table 8).

#### 4.5. The case of monosyllabic bases

Gill observes that in Trinitario, "on words of only one or two syllables AND on Initial Subjunctive words the last syllable of the stem or word itself is repeated" (Gill 1957: 218). He then provides the examples shown in Table 9.

Table 9. Reduplication of final stem or final word syllable according to Gill

morphological structure of the base	translation of the base	morphological structure of the reduplicated form	phonological output of the reduplicated form	translation of the reduplicated form
<i>niko /ni-ko<sup>9</sup></i>	to eat	<i>vi-ni?ko~ko-xi-ko</i>	<i>vnikkoxko</i>	we eat often
<i>u:na / u:-na</i>	pretty	<i>ti-u:?ná~na-xi</i>	<i>cu:nánaxi</i>	pretty
<i>kótʃitʃa</i>	to have children	<i>vi-ko-tʃitʃa~tʃa-xi</i>	<i>vkotʃittʃaxi</i>	we have many children
<i>ero</i>	to drink	<i>nV-ero~ro-xi-ko</i>	<i>ne:roxko</i>	I drink often
<i>sopo</i>	to believe	<i>nV-sopo~po-xi-co</i>	<i>nsoppojxko</i>	I rather believe

In my view, the last three examples do not constitute counterexamples to the cases observed before. The final syllable of the root is reduplicated, as expected. All three undergo vowel deletion, plus compensatory lengthening in the example before the last. In the first two examples, the reduplicated syllable can be suspected to be the last syllable of the stem, rather than the last syllable of the root. The parsing of these forms is discussed a bit further below. A possible analysis is that the base *niko* "to eat" consists of a monosyllabic root *ni* "eat" plus the active suffix *-ko*, while the base *u:na* "beautiful" consists of the root *u:* "large" plus the classifier for humans *-na*. These would then constitute some of the few cases of monosyllabic verbal roots. In this analysis, it is a suffix (the active suffix or the classifier) rather than the final syllable of the root that is reduplicated. This can be

<sup>9</sup> The parsing of the first two examples is discussed below.

explained by monosyllabic roots being subminimal. In their theory of Prosodic Morphology, Mc Carthy and Pince (1995) state that a prosodic word must contain at least two moras or syllables. Languages show some minimality effects, as in the Lardil examples presented in table 10. In Lardil, bimoraic roots are unchanged in the nominative, but monomoraic roots are augmented to two moras. Here the minimality requirement is imposed at the stem level, since the root itself can be subminimal (Mc Carthy and Prince 1995: 322-323).

Table 10. Lardil augmentation on subminimal root

Underlying	Nominative	Translation
Bimoraic base		
/wiṭe/	wiṭe	inside
/peer/	peer	ti-tree species
Monomoraic base		
/wik/	wika	shade
/ter/	tera	thigh

A possible analysis of the first two lines of Table 9 is that there is in Trinitario a constraint on the size of the base of reduplication: it must be bisyllabic. Reduplication cannot therefore affect the roots *ni* and *u*: in a regular way, because they are subminimal. The suffix following the root is therefore included in the base, making it bisyllabic. Then reduplication copies the final syllable of the base, that happens to be a suffix rather than the morphological root. The two cases under study are now examined.

In the case of *niko*, there are some external reasons to confirm that *ni* is the root "to eat", and *-ko* the active suffix. For example, *-ru* is a suffix regularly replacing the active suffix on active verbs to constitute a patient nominalization. On the verb "to eat", *-ko* is replaced by *-ru* (19), which is a good hint for its identity as an active suffix. Moreover, example (20) shows that a classifier can be inserted between *ni* and *-ko*.

(19) *to na-ni-ru*  
 ART.NH 3PL-eat-PAT\_NZ  
 their food

(20) *ta-ni-che-ko*                      *to yuku*                      elicited  
 3NH-eat-CLFflat.bounded      ART.NH fire  
 The fire burnt the board.

The reduplication thus seems to affect the syllable that is supposed to be the active suffix. However, in *vnikkoxko*, the copy is followed by the classifier *x* and an active suffix. It turns up that the categorization of the *-ko* syllable following *ni* in the verb "to eat" is unstable. At least in the reduplication process, it is reanalyzed as part of the root rather than as an active suffix. This can be the result of reduplication applying minimally to bisyllabic bases.

Concerning the stem *u:na*, it is probably the result of adding the classifier *-na* to the root *u:* "large" (only found before a classifier), which is itself a likely result of compensatory lengthening of the root *uri* "good" (found without a classifier). However, since *uri* is a bisyllabic root, we would expect the syllable *ri* to be reduplicated. In that case, the phonological output of *ti-uri~ri-na* should be */cu:rina /*. Therefore, two analyses remain possible to explain that it is in fact */na/* that is reduplicated. The first possibility is that *u:* is considered to be the underlying root. This is little satisfactory, since in all other cases of vowel deletion/compensatory lengthening, the underlying CVCV... type root is the base of the reduplication process. This option could nevertheless be sustained if *u:* were lexicalized as a root distinct from *uri*, as supported by the semantic shift. *uri* generally means "good", while *u:* means "large". The second possible analysis is that the whole form *u:na* is the root. The same argument holds : the semantic shift between *u:* "large" (or even *uri* "good") to *u:na* "beautiful". Concerning the form *u:nanaxi*, it is therefore difficult to assert whether it is a case of reduplication of an extra-root element (the classifier *-na*), or simply the regular reduplication of the final syllable of the root *u:na*.

The closer examination of these two cases put forward the question of subminimality of monosyllabic roots. A questionnaire with roots suspected to be monosyllabic will be filled in the field to answer this question.

#### 4.6. The double-copy pattern

In a few cases, reduplication on the root-final syllable results in reduplicated forms of the shape (...C)VC~CVCV. The examples are given in Table 11. In my analysis, the root-final syllable is copied twice with deletion of the last vowel of the root. It then constitutes a second pattern of reduplication, that could be labeled *double-copy* or *triplication*.

Table 11. Trinitario double-copy pattern

morphological	translation of	morphological	phonological	translation of
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structure of the base	the base	structure of the reduplicated form	output of the reduplicated form	the reduplicated form
<i>it(u)-ko</i>	to know	<i>ma-it(u)~tutu-pi-ko</i>	<i>mwettutupiko</i>	He knows a bit
<i>?tume</i>	valient	<i>?tume~meme-xi</i>	<i>?tummémexi</i>	(not translated)
<i>a-koxuma</i>	IRR +to be sick	<i>wo ti-a-ko-xuma~mama~xi</i>	<i>wo takxummámaxi</i>	(not translated)
<i>riko</i>	to be rich	<i>riko~koko</i>	<i>rikkoko</i>	He is sort of rich

These cases were first identified by Gill (1957). However, he does not consider them to constitute a second pattern of reduplication. According to this author, we deal here with a unique copy of the root-final syllable, with additional morphophonological changes in the base. Here is what he states about these cases:

"If the consonant of the last syllable of the root

a- does not occur in a consonant cluster, that is, it occurs alone e.g. 'tume

AND b- is not preceded by a long vowel e.g. 'tume

AND c- clusters with itself (as most consonant do in Trin.)

THEN the consonant of the last syllable occurs double when the reduplication is suffixed.

*'tume* (no cons.cl.)                      *'tummémeji*                      "valiente"

*tcojma* (cons.cl.)                      *tcojmámaji*                      "sick"

BUT *votacjuma* (no cons. cl.)                      *votacjumámaji*                      "not sick"

*temareco* (*r* doesn't cluster with *r*)                      *temaréreco*." (Gill 1957:217)

An interesting point is the fact that both patterns can occur on the same root, as shown by the examples he gives. In the pair of examples repeated below, the second pattern occur in presence of an additional prefix.

(21) *ko-juma* "to be sick": *ti-ko-juma~ma-xi* → *tcojmamaxi*

*ti-a-ko-juma~mamaxi* → *takjummamaxi*

This suggests at first view that the existence of the second pattern is related to vowel deletion. This idea is supported by the fact that the double-copy pattern of reduplication is not attested in the Ignaciano dialect. One of the few differences between these two dialects

is that Ignaciano does not undergo any vowel deletion process. One hypothesis is that the presence of a second copy is used to compensate for the loss of similarity between the base and the copy due to vowel deletion. The second copy recreates a sequence of two identical syllables.

The following table summarizes the two concurrent analyses (double-copy or consonant gemination) on a two-syllable root.

Table 12. Comparison of the double-copy and consonant gemination analysis

	this paper	example	Gill (1957:217-218)	example
input	CVCV	<i>riko</i>	CVCV	<i>riko</i>
reduplication	CVCV ~CVCV	<i>riko~koko</i>	CVCV ~CV	<i>riko~ko</i>
other processes consonant doubling vs. vowel deletion	CVC_ ~CVCV	<i>rik~koko</i>	CVCCV ~CV	<i>rikko~ko</i>
output	CVCCVCV	<i>rikkoko</i>	CVCCVCV	<i>rikkoko</i>

Since Gill does not consider vowel deletion in his grammar, consonant doubling is explained as an additional rule triggered by reduplication and affecting the last consonant of the root in certain phonological contexts. There are two major problems with this analysis. First of all, there is no obvious explanation for consonant doubling, that according to Gill occurs only in this context. As we have shown in 4.4, examples of apparent consonant doubling can be better explained by vowel deletion, a process pervasive to the language. Second, Gill's analysis undergenerates the consonant doubling process. Examples are attested that follow the basic reduplication pattern even though the input phonological context should lead to consonant gemination. According to Gill's analysis, the reduplication forms of *soko*, *samo*, *imoti*, *kemtone* should show root-final consonant doubling since these roots conform to his set of phonological conditions for the process to occur. Yet, they do not show such doubling in the root preceding the copy, as illustrated in Table 13 with the example of *samo* 'to listen' (the lexicalized meaning of the reduplicated form with the pluractional suffix is "go to the mass").

Table 13. Reduplicated form of *samo* generated by the competing analysis

	this paper	Gill (1957:217-218)
input	<i>nV-samo</i>	<i>nV-samo</i>

reduplication (+classifier and active suffix)	<i>nV-</i> <i>samo~mo-ri-</i> <i>ko</i>	<i>nV-samo~mo-ri-</i> <i>ko</i>
vowel deletion vs. consonant doubling	<i>n-sam~mo-</i> <i>ri-ko</i>	<i>n-sammo~mo-ri-</i> <i>ko</i>
output	<i>nsammoriko</i>	* <i>nsammomoriko</i>

I am not claiming here that the double-copy pattern cannot occur on such roots. A more thorough inquiry should answer this question. An elicited example seems to indicate that the same root can actually combine with the two patterns (compare (22) and (23)).

(22) *s(V)-it(u)~tu-p(i)-ko* elicited  
 3F-learn~RED-CLFlong.flexible-ACT  
 She is learning (a language) a bit.

(23) *esu s(V)-it(u)~tutu-pi-k(o)-ripo to (i)-et{xiri:wo.*  
 PRO.3F 3F-learn~RED2-CLFlong.flexible-ACT-already ART.NH 1PL-language  
 She is learning our language bit by bit.

Since no specific context for the occurrence of the double-copy pattern has been determined, it seems wiser in a first step to accept until it is tested the possibility that any root may combine with the two patterns. Then presumably each pattern serves a different function. We can note that all the examples of the double-copy pattern in our corpus have an attenuative meaning. The meaning of the double-copy examples in Gill's work is not specified, while in Ignaciano both meanings are attested with only the basic pattern of reduplication being attested. In the pair of examples (24) and (25), both patterns express attenuation on the root *it(u)-ko* "to know/to learn". According to the translation offered by the speaker, in the double-copy version, the process is presented as more gradual. Thus it does not seem that the two phonological patterns correlate with the two major functions of Trinitario reduplication exposed in Section 3, as is for example the case in the Tupi-Guarani languages where each phonological template expresses a different meaning (Rose 2005, 2007). They rather seem to convey some different degree in the semantic rendering of reduplication. The double-copy pattern could possibly be used to intensify the meaning of reduplication, whatever it is, attenuation or repetition. Such a scenario is attested

elsewhere, for example in Tigre where the number of copy (one to three) accentuates the attenuative meaning of reduplication (Rubino 2005: 15).

## 5. Conclusion

This paper describes verbal reduplication in Trinitario. At the functional level, partial reduplication of the verb conveys either an attenuative or a repetitive meaning. At the morphological level, the copy is a derivative suffix internal to the stem. At the phonological level, Trinitario reduplication is defined as reduplication of the root-final syllable, with a possible double-copy of the same syllable (triplication). The base may be altered by vowel deletion and compensatory lengthening.

With the help of a new Trinitario corpus and better knowledge of the phonological evolution of this dialect, a better understanding of the reduplication process was reached. This paper put forward two new analyses. First, Trinitario contains a phonological variant (with deletion of the root final vowel) of the already described phonological pattern. Second, there is a second reduplication pattern, with two copies of the root-final syllable and also deletion of the root final vowel. These recent developments have been explained as the result of the vowel deletion process pervasive in the Trinitario dialect. Taking into account vowel deletion in the analysis of reduplication permits to explain the output of various reduplication patterns in a manner that is more coherent with the general prosodic system of the language.

At the typological level, the fact that Trinitario displays partial reduplication (copying part of an element) but no full reduplication forms a clear counterexample to the hypothesis that "all languages that have partial reduplication also have total reduplication" (Moravcsik 1978: 328, Rubino 2005: 12). Another interesting aspect of reduplication in Trinitario is that the regular processes of vowel deletion and subsequent compensatory lengthening may result in a surface realization where the copy and its base do not look alike. Differences between the base and the copy are usually attributed to phonological processes affecting the copy (Rubino 2005:17). In Trinitario, it is the base that is altered by the vowel deletion and other prosodic rules, making opaque the normally transparent phonological identity between base and copy.

## Abbreviations

ACT	active
APL	applicative



ART	article
CAU	causative
CLF	classifier
COP	copula
D	discourse marker
F	feminine (singular)
IRR	irrealis
M	masculine (singular)
MID	middle
NH	non human
PAS	past
PAT_NZ	patient nominalizer
PL	plural
PLURAC	pluractional
PRO	pronoun
RED	reduplication
RED2	double reduplication
RPT	reportative
SG	singular
TAM	Tense-Aspect-Mood
VZ	verbalizer

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## A hierarchical indexation system: The example of Emerillon (Teko)

*Françoise Rose*

### 1. Introduction

This chapter deals with a particularly challenging facet of the Emerillon language: the person indexation system. Its most remarkable feature is the selection of the obligatory person index out of two series on transitive predicates. Transitive predicates allow only one person index, which is selected according to the relative position of the two arguments on both the person hierarchy  $1/2 > 3$  and the grammatical roles hierarchy  $A > P$ . I will argue that this system should be classified as a distinct type of indexation system, here termed ‘hierarchical’.

Emerillon is a language spoken in French Guyana by about 400 speakers who call it Teko. It belongs to the Tupí-Guaraní family (e.g. Rodrigues 1984–1985), itself part of the Tupí stock. The Tupí-Guaraní family consists of about 40 languages spread out through Brazil and neighbouring countries and “is noted for a high degree of lexical and morphological similarity among its member languages in spite of their extensive geographical separation” (Jensen 1999). Person-indexation, often called cross-referencing, is one of the major themes of Tupí-Guaraní morphosyntax, which has been studied both within particular languages (Seki 1990 for Kamaiurá; Rodrigues 1990 for Tupínamba; Leite 1990 for Tapirapé; Harrison 1994 for Guajajara *inter alia*) and for the whole family (Jensen 1990; Payne 1994). As far as the Emerillon language is concerned, it was little described before my own work (Rose 2003a, 2008, to appear). However, the question of person indexation in Emerillon had been presented before in an article on Emerillon parts of speech (Couchili, Maurel, and Queixalós 2002). The present work goes further into the description of the indexation system, and takes a typological perspective.

The chapter first presents the Emerillon person indexation system on verbs (Section 2). It then discusses its characterization as a hierarchical system (Section 3) and rejects the hypothesis that it is an inverse system. After considering these two points, I address the issue of the alignment

type to which Emerillon belongs. This study focuses specifically on the verb morphology and does not deal with nominal predication.<sup>1</sup>

## 2. Indexation in Emerillon

The person markers used on verbs are divided in two main sets, often called Set I and Set II in the Tupí-Guaraní literature (see for instance Jensen 1998).

Table 1. Emerillon sets of person indexes

	Set I	Set II
1 SG	<i>a-</i>	<i>e-</i>
2 SG	<i>ere-</i>	<i>de-</i>
1 INCL	<i>si-</i> <sup>2</sup>	<i>nõde-/kõde-</i>
1 EXCL	<i>oro-</i>	<i>ore- / orone-</i>
2 PL	<i>pe-</i>	<i>pe- / pene-</i>
3	<i>o-</i>	<i>i-</i> <sup>2</sup> / $\emptyset$ -
indeterminate	<i>za-</i>	<i>zo- / poro-</i> <sup>3</sup>

Set II indexes are also used beyond the verb morphology to refer to the possessor of nouns (1) and the object of postpositions (2).<sup>4</sup>

- (1) *kob-nẽ*                    *nõde-kuru-o*  
 COP-CONTRAST   **1INCL.II**-manioc\_beer-CONT  
 ‘But our traditional drink (manioc beer) still exists.’

- (2) *a?e-kom-ãhã*    *nõde-pe*            *kob*  
 DEM-PL-only    **1INCL.II**-for    COP  
 ‘These things only exist for us.’

I will now turn to the specific distribution of person markers on intransitive and transitive verbs. An important preliminary point is that all verb forms obligatorily carry a person index, regardless of whether arguments are expressed as full nominal phrases or not.

## 2.1. Intransitive verbs

On intransitive verbs, only Set I is found, referring to S.

- (3) *si-mãñõ-tar*  
**1INCL.I-die-FUT**  
 ‘We are going to die.’

## 2.2. Transitive verbs

On transitive verbs, Set I is used for A and Set II for P.

Table 2. Distribution of person indexes on transitive verbs

	A	P
Set I	x	
Set II		x

The interesting point about indexation on transitive verbs is that only one slot is normally available for person indexes. Whether the A or the P is marked depends on two different hierarchies. These hierarchies will be introduced when relevant in the following presentation of the three transitive scenarios: local (involving speech act participants only), non-local (involving third persons only) and mixed (involving a speech act participant and a third person).

## 2.2.1. Mixed scenarios

Whenever a speech act participant and a third person interact, the person hierarchy is called into play. Speech act participants are higher than the third person on this scale.

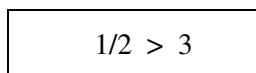


Figure 1. Person hierarchy

The participant higher on the hierarchy is marked on the verb, whether A or P. In both examples below, a first person inclusive and a third person are involved. The first person being higher in the hierarchy, it is in both cases

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the one to fill the person index slot, with a Set I index when it is A (4), and with a Set II index when it is P (5).

- (4) *nōde-baʔekwər-a-we*      *si-kuwa-gatu*  
 1INCL.II-story-REF-also    1INCL.I-know-well  
 ‘And we also know our story very well.’
- (5) *apam-a-nē*                      *nōde-apisi-tanē*  
 stranger-a-CONTRAST      1INCL.II-massacre-DESID  
 ‘The strangers wanted to massacre us.’

Likewise, in both examples below, a second person singular and a third person are involved. The second person being higher in the hierarchy, it is the one to be indexed on the verb, with a Set I index when it is A (6), and with a Set II index when it is P (7).

- (6) *mama-nē*                      *ere-ɕika !*  
 Mum-CONTRAST      2SG.I-kill  
 ‘You killed Mum!’
- (7) *e-ʔu-tar-eʔe*                      *zawar*  
 2SG.II-eat-FUT-INTENS    jaguar  
 ‘The jaguar is for sure going to eat me.’

In all of these cases, the indexing of a speech act participant on the verb, whether as A or P, indicates indirectly that the other participant, i.e. P or A, is to be interpreted as a third person.

### 2.2.2. *Non-local scenarios*

The person hierarchy does not specify any hierarchy between different third persons nor among speech act participants. These distinctions are informed by the grammatical roles hierarchy, at work whenever the person hierarchy is not relevant, i.e. between two third persons or two speech act participants.



Figure 2. Grammatical roles hierarchy

When a third person acts on another third person, the grammatical roles hierarchy requires the A to be systematically marked (with a Set I index), whatever the arguments may refer to.

- (8) *o-wi*                      *o-zika*  
 3.COREF-mother    3.I-kill  
 ‘He killed his mother.’
- (9) *patu-pope*    *o-ijnun*  
 pot-in              3.I-put  
 ‘She puts them (the sweet potatoes) in the pot.’
- (10) *arakapusa-uhu*    *o-mōdur-oŋ*    *bal*  
 gun-big              3.I-send-PL.S    bullet  
 ‘Guns were shooting bullets.’
- (11) *o-pero-perog*    *e-iba*            *Ø-owa*  
 3.I-RED-lick    3.II-pet        3.II-face  
 ‘His dog licks his face.’

The *o-* prefix of Set I (marking either Ss or As) here indicates indirectly that P is also a third person: if P was a speech act participant, it – instead of A – would have to occupy the index slot due to its higher position on the person hierarchy. A consequence of these two hierarchies is that the *i-* prefix of Set II never occurs on verbs.<sup>5</sup> It is nevertheless used in nominal phrases (as a possessive marker) and in postpositional phrases.

### 2.2.3. Local scenario 2→1

In Emerillon, the local scenarios (i.e. when the two participants are speech-act participants, either 2→1 or 1→2) all show the A indexed on the verb, regardless of the person of the participants. The two local scenarios are therefore described as following the grammatical roles hierarchy A > P already mentioned for the non-local scenario.

Table 3 presents the four instances in which a second person (singular or plural) acts on a first person (singular or exclusive). In each case, A is marked with Set I on the verb, and the verb is followed by a pronoun (the meaning of which is discussed below).

Table 3. 2→1 examples in Emerillon<sup>6</sup>

A	P	Examples
2SG	1SG	<i>ere-nupã ereŋ</i> 2SG.I-hit 2SG 'You (SG) hit me.'
2SG	1EXCL	<i>ere-nupã orone-kom</i> 2SG.I-hit 1EXCL.II-PL 'You (SG) hit us.'
2PL	1SG	<i>pe-nupã peŋ</i> 2PL.I-hit 2 PL 'You (PL) hit me.'
2PL	1EXCL	<i>pe-nupã orone-kom</i> 2PL.I-hit 1EXCL.II-PL 'You (PL) hit us.'

The presence of the independent pronominal form is necessary to disambiguate the 2→1 configuration from the configuration in which a second person acts on a third person, as in (12).

- (12) *ere-nupã*  
2SG.I-hit  
'You (SG) hit him/her/it/them.'

Because, when 2→1, A is systematically marked on the verb by a Set I prefix, we would expect the pronoun following the verb to refer to P, but this is not always the case. In the second and fourth line of Table 3, *oronekom*, the normal free pronoun for first person exclusive, refers explicitly to P, as expected. Surprisingly, in the first and third line, the independent forms *ereŋ* and *peŋ*, used only in this specific scenario, are linked to second person pronominal forms rather than to first persons (Proto-Tupí-Guaraní pronouns for second person singular and plural are reconstructed as *\*eré/ene* and *\*pe...ẽ*, Jensen 1998). The system seems a priori illogical in synchrony: in order to refer to a second person A and a first person P, two markers for second person are used. The oddity of the marking of



2SG/PL→1SG can be explained as a residue of a former 1 > 2 hierarchy, substituted for by the grammatical roles hierarchy A > P.<sup>7</sup>

#### 2.2.4. Local scenario 1→2

When a first person acts on a second person, Emerillon uses two different structures according to the number of P. *oro-* is used when a first person (singular or plural) acts on a second person singular (13), and *a-poro-* when a first person (singular or plural) acts on a second person plural (14).

(13) *oro-ʔu-tar*

1EXCL.I-eat-FUT

a) 'I will eat you.' (and also: 'We will eat you.')

b) 'We will eat it/her/him/them.'

(14) *a-poro-nupã-tar*

1SG.I-INDET.II-hit-FUT

'I/we will hit you all.' (Lit. 'I hit people'; spoken in a narrative by a father furious at his misbehaving daughters)

The use of *oro-* in (13) is ambiguous. As a Set I marker for first person exclusive (cf. Table 1), it can refer to scenario (b), where a first person exclusive acts on a third person, but it can also refer to the local scenario (a), i.e. a first person (singular or exclusive) acts on a second person singular. Accordingly, when a transitive verb is prefixed with a Set I first person exclusive marker, this marker refers to a first person A, and P is inferred. In the absence of any NP referring to P, only context can solve the ambiguity between a second and a third person P. Interestingly, with a second person P, *oro-* neutralizes the number opposition of A.

Indexation in (14) is made up of two morphemes: *a-* first person singular of Set I (here neutralized in terms of number), referring to an A, and *poro-* usually referring to a generic human P (cf. Table 1). The opaque encoding of the local scenarios (due to substitution of forms or semantic neutralization) has been discussed in comparative and historical perspective and with reference to politeness (in keeping with Brown and Levinson 1987) in earlier work (Rose 2003a, 2003b).

In summary, my analysis of the Emerillon local scenarios is as follows:

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- For 2→1, A takes priority in filling the index slot on the verb. The second person marker, following the verb, refers to P either directly (*oronekom*), or indirectly (*ereɲ, peɲ*).
- For 1→2SG, *oro-* is analyzed as an A marker.
- For 1→2PL, A is marked with Set I (*a-*), whereas P is marked with a human generic object (*poro-*).

My conclusion is that there is no obvious person hierarchy between the two speech act participants. The various local scenarios are better explained by the grammatical roles hierarchy, which also applies to non-local scenarios, than with any possible person hierarchy. Indeed, in all cases, A is indexed on the verb with Set I, while P is either unexpressed or expressed in a rather marginal way, i.e. as an ‘incorporated’ generic noun, or as a pronoun following the verb.

The main points of the indexation system on Emerillon verbs are repeated below.

- On intransitive verbs, S is marked with Set I.
- On transitive verbs, either A or P is marked (with Sets I or II, respectively) according to their relative position on a person hierarchy or on a grammatical roles hierarchy. The 1/2 > 3 person hierarchy operates when only one speech act participant is involved, and the A > P grammatical hierarchy operates elsewhere.

The following section focuses on the use and organization of the different hierarchies operating in the Emerillon transitive constructions. For the sake of the coming discussion, we note that the indexation system presented below is quite comparable to the indexation system of the independent clauses in other Tupí-Guaraní languages, although differences can be noted in the local scenarios (cf. Rose 2007). In Emerillon, the same system also applies in dependent clauses.

### 3. Characterization of the hierarchical indexation system on transitive verbs

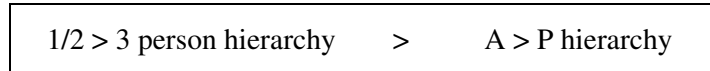
The terms ‘person hierarchy’ and ‘grammatical roles hierarchy’ used here correspond roughly to other designations that emerged in line with Silverstein’s pioneering work on hierarchies of features (Silverstein 1976). The author highlighted the role of semantic properties of nominals on case-marking and agreement (more specifically in the domain of ergative or

split-ergative systems). A recent label that subsumes all aspects (semantic, referential, discursive) of these hierarchies is the ‘Indexability Hierarchy’ (Bickel and Nichols 2007: 224–227).

The two hierarchies used in Emerillon could logically be justified in terms of saliency, with the most salient participant being put forward. It is nevertheless important to assert that this system is completely grammaticalized: whatever the characteristics of the participants are, what counts in the system is the grammatical persons and the grammatical roles.

While the person hierarchy attested in most Tupí-Guaraní languages is usually presented as  $1 > 2 > 3$ , the Emerillon data point clearly at only a  $1/2 > 3$  hierarchy. This reorganization of the person hierarchy (cf. endnote 7), involving the neutralization of the hierarchy between first and second persons, can probably be attributed to politeness conventions, just like the substitution patterns detailed in the local scenarios. This is tightly correlated with the fact that languages tend to disfavour transparent marking of first and second person combinations (Heath 1998). This assertion is confirmed by the fact that both in Emerillon ( $1/2 > 3$ ) and in the hypothetical Proto-Tupí-Guaraní ( $1 > 2 > 3$ ), the marking is very clear and systematic when only one speech act participant is involved, but less so when both first and second person are involved (Montserrat and Soares 1983). This difference in treatment is common in languages involving a person hierarchy. A similar example is given by Gildea (1994) for the inverse system of Caribe. DeLancey (ms.) proposes the deictic nature of inverse and hierarchical systems as an explanation for the fact that these systems give a special status to speech act participants. Likewise, in typological perspective, first and second person are independent within the hierarchy, and their relative order fluctuates from one language to the other (Silverstein 1976, DeLancey 1981). This may help account for the fact that the Emerillon language succeeded in reorganizing the Proto-Tupí-Guaraní hierarchy concerning specifically the local scenario, neutralizing the hierarchy between the speech act participants. The grammatical roles hierarchy came into play to compensate for this change.

On transitive verbs in Emerillon, the correct index is selected according to the relative position of the two arguments on both the person hierarchy  $1/2 > 3$  and the grammatical roles hierarchy  $A > P$ . Two hierarchies are thus involved, and Couchili, Maurel, and Queixalós (2002) propose to order them as follows:



*Figure 3.* Hierarchy of hierarchies

However, the authors consider that the person hierarchy is  $2 > 1 > 3$ , and therefore the grammatical roles hierarchy is used only when both participants are third persons. The present analysis describes the person hierarchy as  $1/2 > 3$  and extends the scope of the grammatical roles hierarchy to the local scenarios: it is also outside the scope of the person hierarchy, and thus obeys the grammatical roles hierarchy. On the whole, the grammatical roles hierarchy becomes relevant when, and only when, the person hierarchy is not. I argue that this type of indexation system on transitive verbs should be classified as ‘hierarchical’, as the primary organizing pattern is the notion of hierarchy.<sup>8</sup>

A first explicit definition of hierarchical systems considered on a par with neutral, accusative, ergative, stative-active and three-way systems, is Nichols (1992). Section 5 will discuss further developments of this definition, in relation to the question of alignment type:

Access to inflectional slots for subject and/or object is based on person, number, and/or animacy rather than (or no less than) on syntactic relations. (Nichols 1992: 66)

Languages identified as displaying a hierarchical system are Cree, Tepehua, Mixe, Nunggubuyu, Kiowa (Nichols 1992), Tangut and some Tibeto-Burman languages (DeLancey 2001).

Since the existence of the person hierarchy in Tupí-Guaraní languages has led to the interpretation of these agreement systems as inverse systems, I now turn to this interesting question.

#### **4. Against the inverse hypothesis**

It was Doris Payne (1994) who first formulated the hypothesis that Tupí-Guaraní languages could be described as having an inverse system. The author follows Givón’s definition of the inverse, based on the notion of an ‘inherent topicality hierarchy’  $1 > 2 > 3$  (Givón 1994). If  $1 \rightarrow 2/3$  or  $2 \rightarrow 3$ , the action flows in the natural direction (A is more topical than P). This flow is considered to be direct. If the action flows the other way around (when P is more topical than A), the flow is considered to be inverse. Fur-

thermore, a canonical inverse language is a language that expresses the inverse direction with morphosyntactic devices in a transitive construction. Examples from Fox, an Algonquian language are given below, where *-aa* is a direct marker (15), and *-ek* an inverse one (16).

Fox (Algic, Algonquian; Comrie 1981: 122)

(15) *ne-waapam-aa-wa*  
1SG-see-DIRECT-3  
'I see him.'

(16) *ne-waapam-ek-wa*  
1SG-see-INVERSE-3  
'He sees me.'

Payne (1994) applies this definition to the Tupí-Guaraní system, organized around a  $1 > 2 > 3$  hierarchy. Direct situations are marked with Set I for A. They include some mixed scenarios (when A is superior to P on the person hierarchy) and the non-local scenario, since Set I is also used when two third persons are involved. Inverse situations are marked with Set II for P, and consist of the remaining mixed scenarios (when P is superior to A on the person hierarchy). The encoding of the local scenarios is not explicitly classified as direct or inverse.<sup>9</sup> The author's main argument for the inverse analysis is that the relational *r-* prefix, found in co-occurrence with Set II, be analysed as an inverse marker in Tupí-Guaraní languages. There would be no specific marker for direct. Following this analysis, the Wayampi example (17) below would be a direct construction, with a Set I index for first person A and no index for P. Example (18) would be an inverse construction, with no index for A but a Set II index referring to first person P, and an overt inverse marker *r-*. This hypothesis could likewise be applied to Emerillon, since the indexation system on independent verbs diverges with the rest of the family only in local scenarios.

Wayampi (Tupian, Tupí-Guaraní; Payne 1994: 314–315)

(17) *namu r-a'y jĩ a-juka*  
tinamou LK-immature only 1SG.I-kill  
'I killed just a little tinamou.'

(18) *e-r-aty-pa e-ke pe e-r-uwy*  
1SG.II-LK-cover-COMPLE 1SG.II-sleep in 1SG.II-LK-blood  
'My blood completely covered me in my dream.'

However, a canonical inverse language is a language that expresses the inverse direction with an explicit morphosyntactic device. The relational morpheme that Payne suggests is an inverse marker in Tupí-Guaraní languages (the *r*-relational) is found throughout the family on a lexically defined subclass of transitive roots, but as well on certain intransitive roots, and some nouns and postpositions, when preceded with a Set II index or a full object/possessor (see for example the second occurrence of *r*- in example 18). My first counter-argument is that the syntactic distribution of *r*- is greater by far than is the function of the inverse category. It could reasonably be glossed as an ‘inverse marker’ only on transitive roots. This analysis would also not account for the unique function it serves throughout its distribution: the linking of a root with an immediately preceding complement (be it the P of a verb, the possessor or genitive of a noun or the object of a postposition). My second counter-argument is that *r*- is found only with certain lexically determined roots. Its absence with various other roots (in 5 and 7 for instance) is evidence that it is not essential to the system. Moreover, when present, it is redundant with the presence of Set II indexes, which are sufficient to refer to the whole participant scenario. In languages like Fox (illustrated in 15 and 16), the inverse marker is obviously necessary to sort out which of the two participants is A and which is P. I therefore consider that no morpheme can be interpreted as an inverse marker in Tupí-Guaraní languages. As a consequence, to make the inverse analysis tenable for this language family, one would have to be willing to accept that the distribution of person markers into two sets is in itself enough to constitute an inverse system. This assumption would be possible with a purely functional definition of inverse, like that of Givón (1994) or Klaiman (1991), which consider any situation where P is more topical than A, but A is still topical, to be inverse. This is in fact consistent with what T. Payne describes as “special verb agreement markers for inverse situations”, citing data from Wayampi, a close relative of Emerillon (Payne 1997).

Therefore, if the Tupí-Guaraní indexation system, and the Emerillon system in particular, were to be described as an inverse system, it would not be canonical in relation to prototypical inverse systems (most notably of the Algonquian languages). First, direction of action is not expressed by a specific morpheme, since no morpheme can be interpreted as an inverse marker. Second, it is not a complete system, since the non-local scenario and the local scenarios are not involved; it is limited to the mixed scenarios, since a hierarchy would be lacking for the other scenarios. Therefore,

although one can easily identify a function related to inverse in Tupí-Guaraní languages, there are insufficient grounds on which to consider this an inverse system. Positing person and grammatical role hierarchies is sufficient to explain the indexation system.

This argument actually boils down to the confrontation between two different approaches. In the functional approach, inverse is to be found whenever P is more topical than A, but A is still topical (Givón 1994). In the syntactic approach, hierarchical indexation and the marking of direction (inverse) are independent (DeLancey 2001), as discussed by Zúñiga:

Hierarchical alignment and direction are logically independent features that can, but need not, co-occur. A particular language may display verbal morphology that can be meaningfully described with the concept of hierarchical alignment alone, without there being direction marking. Similarly, the morphosyntax of a certain language may (i) be adequately described with a simple SAO model but (ii) allow for additional direction marking if there is no hierarchical alignment. (Zúñiga 2006: 28)

The so-called inverse systems are thus considered as a particular type of hierarchical systems (Nichols 1992, Siewierska 2004), or for DeLancey, both are expressions of deictic orientation (DeLancey 2001). In line with Heath's argument (Heath 1998), I stand against the extension of the 'inverse' terminology to forms lacking an inverse marker, arguing that it actually undermines the usefulness of such a term. The Emerillon indexation system on transitive verbs is thus a plain hierarchical system.

## **5. Characterizing the alignment system of Emerillon**

Whatever the definition of alignment (either the way the arguments of a transitive predicate align with the unique argument of an intransitive verb, or the way grammatical relations map to grammatical roles), the hierarchical indexation system presented above can not be reduced to an alignment system. The relative position of arguments on the hierarchies does not assign them their grammatical roles. The system focuses on the relative saliency of the participants:

We are used to thinking of verb agreement as tied to grammatical relations: a common claim about the typology of verb agreement is that if a language has verb agreement it will index the subject; some languages index both subject and object, and a rare handful index only objects. However, there are

languages in which indexation of arguments in the verb reflects not grammatical relations, but the person hierarchy. In these languages a verb will always agree with a SAP argument, regardless of its grammatical role. (DeLancey 2001)

This is where I want to draw a neat distinction between hierarchical indexation and hierarchical alignment. Hierarchical indexation systems simply rule access to inflectional slots on transitive predicates. Within the same languages, alignment can still be marked in other morphosyntactic domains (such as nominal morphology or syntax). Moreover, alignment is also concerned with intransitive predication. This explains why hierarchical systems can co-occur with other alignment patterns, as Nichols states: “most hierarchical languages also have an identifiable accusative, neutral, or stative-active component. We may speak of hierarchical languages, like stative-active languages, as admitting various base alignments, at least in theory.” (Nichols 1992: 68). As far as hierarchical alignment is concerned, we deal with languages in which the hierarchies constrain the assignment of grammatical relations to S, A and P. A notable case is when the indexability hierarchy governs the access to syntactic function, as in Kiowa (Zúñiga 2006: 65).

For this reason, my position is that a system such as Emerillon’s is to be seen simply as an indexation system, rather than as an alignment type. The scope of hierarchies does not go beyond the selection of the argument to be encoded on the transitive verb. It does not influence the access to grammatical roles and even less so to grammatical relations. Consequently, the Emerillon alignment type has to be considered separately from its indexation system. Characterization of the alignment type of a specific language should take into account several parameters, including indexation, but also case, constituent order and syntax, since different types of alignment may co-occur in a language, depending on the parameter and/or the specific construction observed. Since arguments in Emerillon are not marked for case and their order is relatively flexible, the argumentation will be based on the indexation pattern described above and on syntactic phenomena.

Even though the Emerillon indexation system is based upon the notion of hierarchies, grammatical roles are not completely excluded from it. Remember that the selection of the argument to be indexed on the transitive verb depends on its position on the hierarchies, yet the morphological paradigms of the indexes correlate with grammatical roles. Set I encodes A, while Set II encodes P. Since the unique argument of an intransitive verb is also encoded with Set I, it aligns with the A argument of a transitive



verb. This forms a nominative-accusative system, where S and A are encoded likewise, and differently from P, as shown in Table 4.

Table 4. Distribution of person indexes on verbs

	S	A	P
Set I	x	x	
Set II			x

Syntactic phenomena confirm the subject category postulated when looking at the distribution of the morphological paradigms. Some agreement and coreference patterns are indeed associated with a subject category comprising S of intransitive verbs and A of transitive verbs. Two examples are given below. First, the plural clitic *-(o)ŋ* agrees exclusively with the unique argument of a verbal intransitive predicate (19) and the A argument of a transitive verb (20), but not with the P argument of a transitive verb (21). Within the Tupí-Guaraní family, this criterion is specific to Emerillon, since the family does not offer a unified way of marking number.

(19) *o-paʔam-oŋ*    *ikiʔi*  
 3.I-get\_up-PL.S    then  
 ‘Then they got up.’

(20) *baipuri o-pihig-oŋ*  
 tapir    3.I-catch-PL.S  
 ‘They caught a tapir.’

(21) \**a-ikidʒ-oŋ*  
 1SG.I-catch-PL.S  
 ‘I caught them.’

Second, a criterion widely used by Tupí-Guaraníists to define the subject grammatical relation is the use of an *o-* index for third person possessors or objects of postpositions specifically triggered by coreference with the subject, be it of an intransitive (22) or a transitive verb (23).

(22) *o-ho*    *o-wi-kotʔ*  
 3.I-go    3.COREF-mother-to  
 ‘He is going to his (own) mother.’

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- (23) *bokal-a-pe o-akaŋ o-mõde*  
 jar-REF-in 3.COREF-head 3.I-put  
 'He put his (own) head in the jar.'

As a consequence, the coreferential index *o-* is in opposition with the Set II (i.e. non-coreferential) third person marker *i-*, both as a possessor (compare examples 23 and 24) and as an object of postposition (compare 25 and 26).

- (24) *i-(dʒ)akaŋ zawar o-wur*  
 3.II-head dog 3.I-go\_up  
 'The dog went up on his head.'

- (25) *o-ijnur o-wib*  
 3.I-put 3.COREF-under  
 'She put it under herself.'

- (26) *o-bowig i-wib*  
 3.I-put\_firewood 3.II-under  
 'They put more firewood under it.'

In brief, person index paradigms and syntactic patterns concur in the analysis of the Emerillon alignment type as nominative-accusative. Alignment is therefore completely independent of the hierarchical indexation system. Of course, in all hierarchical indexation systems, a device is necessary to disambiguate between A and P. In some languages, it is done through the existence of direct/inverse morphology. In Emerillon, this is done through the existence of two distinct person index sets. This is how this indexation system, though not organized so as to primarily mark such and/or such grammatical roles, nevertheless does mark grammatical roles and therefore participates in the general alignment type of the language, which is basically nominative-accusative.

## 6. Conclusion

To give a brief summary of the Emerillon person indexation system on the verbs, intransitive verbs take a Set I index, while transitive verbs allow only one person index, 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 both the person hierarchy  $1/2 > 3$  and the grammati-

cal roles hierarchy A > P. Thus, hierarchy is the primary organizing pattern of the Emerillon agreement system on transitive verbs. Since no morpheme can be considered to be marking direction of action (as normal or reversed, i.e. direct or inverse), the system is simply labelled ‘hierarchical’. A broader picture of the language (including syntax) shows a nominative-accusative alignment, where the A of a transitive verb aligns with the S of an intransitive verb. The following table sums up the characterization of indexation and alignment in Emerillon.

Table 5. Indexation and alignment in Emerillon

Indexation on transitive verbs:	hierarchical with no direction marking
Morphological alignment:	nominative-accusative
Syntactic alignment:	nominative-accusative

It is clear from this table that, of the three possible implications of the indexability hierarchy in a language (access to marking slots, marking of direction, access to syntactic functions; Zúñiga 2006: 27, from Nichols 2002: 66), Emerillon shows only the first: the hierarchy only serves to select the argument indexed on the transitive verb.

The analysis of the hierarchical indexation system of Emerillon, in comparison with other languages, leads to three theoretical assertions. First, ‘hierarchical’ systems should be considered alongside major indexation systems. Second, inverse systems should be considered as a subtype of hierarchical systems more generally, rather than the other way around. And finally, indexation should be considered independent of alignment.

## Notes

1. I would like to thank Francesc Queixalós, Andrej Kibrik and Scott DeLancey for their helpful remarks on initial steps of this investigation, as well as Denis Creissels and Katharina Haude for more recent discussions.
2. *si-* and *i-* are realized *se-* and *e-* before the vowel *i*.
3. *zo-* is used on nouns, *poro-* on verbs to mark a generic human object ‘people’.
4. The abbreviations used in this chapter are the following: I, II Set I, Set II; A most agent-like argument of a transitive clause; COMPL completive; CONT continuous; CONTRAST contrastive; COP existential copula; COREF coreferential; DEM demonstrative; DESID desiderative; EXCL exclusive; FUT future; INCL inclusive; INDET indeterminate; INTENS intensive ; INTER interrogative; LK linker; P most patient-like argument of a transitive clause; PL plural; PL.S plural of

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subject; PRO pronoun; RED reduplication; REF referential; RELN relational; S unique argument of an intransitive clause; SG singular.

5. The Set II prefix *i-* is actually found on some gerundives, as a residue of former absolutive marking on verbs in dependent clauses (Rose, ms).
6. The configuration where a first person inclusive interacts with some other speech act participant (i.e. second person or first person singular), although logically possible, is never attested in my corpus. The overt expression of such a configuration is probably dispreferred due to the overlapping of the two referents.
7. The peculiar use of the independent second person markers in 2→1SG scenarios can probably be explained as a hypothetical residue of a Proto-Tupí-Guaraní marker for A. Since the hierarchy in Proto-Tupí-Guaraní is considered to be 1 > 2 > 3 (Montserrat and Soares 1983, Jensen 1998), in the same 2→1 scenario, the first person P, being higher in the hierarchy, is procliticized to the verb, and the second person A is then expressed with an independent pronoun following the verb. For a detailed account of this diachronic hypothesis, see Rose (2003b and 2007).
8. This chapter deals with person indexation on verbs only. However, in a study also taking into account nominal predicates (including among them descriptive words), the system could be considered as displaying split intransitivity, since different types of intransitive predicates take different person marking. Intransitive verbs take Set I prefixes while nominal predicates take Set II prefixes. In the analysis of Tupí-Guaraní languages where descriptive words are classified as verbs (such as Kakumasu 1986, Leite 1990, Jensen 1998, Seki 2000), the split intransitivity analysis holds within the verbal indexation system. For a detailed account of the debate about which part of speech the descriptive words belong to, see Meira (2006).
9. Payne (1994) only mentions that the local scenario where a first person acts on a second person is traditionally described as using so-called portmanteau morphemes (considered to belong to a separate paradigm called Set IV, see for example Jensen 1998: 522). However, it would be easy to integrate the other local scenario participates in the putative direct/inverse system: when a second person acts on a first person (as in 10 from Tupínambá), the first person P is marked on the verb with a Set II clitic. This scenario illustrates both the inverse function and the so-called inverse morphology.

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## Who is the third person? Fluid transitivity in Mojeño Trinitario<sup>1</sup>

Françoise ROSE

Dynamique Du Langage (CNRS/Université Lyon 2), France

### Abstract.

Mojeño Trinitario shows a split-intransitivity system combined with a differential marking pattern for third person A/S. The pronominal system of the A/S paradigm is quite complex. There are 5 markers for third person, specified for humanness, number, gender and speaker's gender. Interestingly, these markers compete with another marker for third person, the prefix *ty-*, which is semantically unspecified. The most important factor in the distribution of the two alternatives for third person A/S marking is transitivity. The transitivity of a construction cannot be determined just by the valence of the root (the number of participants) but depends also on other parameters such as the semantic characteristics of the participants and the discourse function of the utterance. As a consequence, transitivity must be seen as a continuum rather than a dichotomy. Since most roots are ambitransitive, transitivity is a category of the utterance level rather than the lexical level. This fluid transitivity is an essential characteristic of Mojeño Trinitario.

[Keywords: Mojeño Trinitario, Arawak, transitivity, subject, third person]

"el prefijo *ti-* es [...] una de las maravillas de las lenguas mojas"

(Olza Zubiri et al. 2002: 528)

## 1. Introduction.

The basic question addressed in this paper is *When does Mojeño Trinitario specify who is the third person subject?* In a large number of languages, third person indexation stands out from the person paradigm in that it is either zero marked or optionally marked. This is the case in Trinitario within the object-marking paradigm, where third person is zero marked. However, in this language a third person subject is always indexed by a prefix on the verb. There are two options for indexing a third person subject on the verb in Trinitario:

- using one of the third person markers that are informative about the semantic characteristics of the referent in terms of animacy, number and gender (*ma-*, *ñi-*, *s-*, *ta-*, or *na-*);
- using the *ty-* prefix, signaling that the subject argument is a third person.

The aim of this article is to discuss the distribution of the alternative options for third person subject encoding, and the coherence of the overall system, framed around the central notion of fluid transitivity.

Section 2 gives a brief introduction to Mojeño Trinitario. Section 3 goes deeper into the pronominal system and presents the problematic third person markers. The rest of the paper examines and analyzes the distribution of the alternative ways of indexing a third person subject. Their distributions are first presented as complementary according to rules related to transitivity and the person of the object (Section 4). The traditional view of transitivity as a dichotomy is then used to show that Mojeño Trinitario displays fluid transitivity, with many ambitransitive roots. Then constructions are presented (Section 5) that suggest that the distribution of person prefixes is dependent on transitivity defined as a continuum rather than as a dichotomy (Hopper and Thompson 1980), with transitivity defined by valence but also

other parameters (e.g., aspect, object affectedness). Moreover, the transitivity of a specific clause is correlated to its discourse function (foreground or background). Section 6 attempts to explain the remaining exceptions as responding to discourse factors. The conclusion summarizes the functions of the Trinitario differential third person subject marking system and compares this system to other Arawak indexation systems.

## **2. Mojeño Trinitario.**

### **2.1. Sociolinguistics and documentation.**

Mojeño Trinitario is a dialect of Mojeño, one of the 20 indigenous languages still spoken in Amazonian Bolivia (Crevels 2002). Mojeño is one of the few South Arawakan languages spoken in Bolivia, along with Baure and Paunaka (Danielsen 2007, this volume). The Arawak family contains the largest number of languages in South America (40 living ones) spoken in 12 countries in Central and South America (Aikhenvald 1999). The Mojeño community (previously called Moxo) consists of 4 groups: Trinitario, Ignaciano, Loretano and Javierano. The Trinitario dialect is exclusively spoken in the Beni Department, in the *Territorio Indígena Parque Nacional Isiboro-Secure* (TIPNIS), in the *Territorio Indígena Multiétnico* (TIM), along the Mamoré river, in and around the towns of Trinidad, San Lorenzo and San Francisco de Moxos. The Mojeño population is over 32,000, with around 3,220 speakers of Trinitario and Ignaciano (Crevels and Muysken 2009). Trinitario and Ignaciano are endangered, while Javierano is moribund, with about five (semi-)speakers, and Loretano is extinct.

Documentation of Mojeño can be found from the beginning of the eighteenth century (Cf. Saito 2005), the best example of which is the *Arte de la lengua moxa con su vocabulario y catecismo*, of Father P. Marbán (Marbán 1701). Linguistic works are richer for Ignaciano than for Trinitario,<sup>2</sup> and to my knowledge inexistent for Loretano and Javierano. Ignaciano is described in a comprehensive grammar (Olza Zubiri et al. 2002), a dictionary and some SIL

studies (Ott and Ott 1967a, Ott and Ott 1967b, Ott and Ott 1983). An alphabet was proposed for Trinitario in a 1995 workshop directed by Pilar Valenzuela and sponsored by the Bolivian Sub-secretaría de Asuntos Etnicos of the Education Ministry, and UNICEF. The final report of the workshop constituted an alphabet booklet (Fabricano Noé, et al. 2003). This writing system is used in this article.<sup>3</sup> Descriptions of the language include a handbook and a dictionary (Gill 1957, 1993 [1970]), a MA thesis on Trinitario morphology (Salvatierra, no date), and a basic but very well done bilingual grammar by a group of speakers and teachers (Ibáñez Noza, et al. 2007).

The data in this paper was collected by myself in the field, in Trinidad and San Lorenzo de Moxos from September to October 2005, August to October 2006 and April to July 2008. The data is primarily based on five and a half hours of recordings of spontaneous (or semi-spontaneous<sup>4</sup>) discourse. Elicitation played a minor role in the data collection.

## 2.2. Typological overview.

Trinitario is an agglutinating language, with a large number of suffix slots and a few prefix slots (1). Lexical and grammatical morphemes display several surface forms, due to a rich system of morphophonemic rules and a pervasive process of vowel deletion (Rose 2008).

(1) *p-emptio-k-yore-wore ene wi-po n-a-k-uch-ku-'-vi-yre*

2SG-get.lost-ACT-FUT-REP and NEG-PERF 1SG-IRR-CAUS-go.out-CLAS-ACT-2SG-FUT<sup>5</sup>

'You are going to get lost again and this time, I will not take you out of it'.

Nominal phrases are remarkable for their high frequency of occurrence. The basic order of constituents is SVO (2). There is no nominal case. When a referent is introduced for the first time, it is usually introduced as a subject postposed to the verb. Given subject and object participants can be referred to by independent pronouns, usually preposed to the verb.<sup>6</sup>

(2) *ene takepo ma t(y)-siso 'chane [...] ma-m-po ma 'chane.*

and then ART.M 3-black person 3M-take-PERF ART.M person

'And then the black man took the (lost) man'.

A common construction is the equative, where two NPs follow each other without copula (3). Other constructions including a verb preceded by a pronoun fronted in focus position are somewhat comparable: the verb, often suffixed with a *-ri'i* suffix<sup>7</sup>, seems to be equated to the pronoun, as in (4).

(3) *eto n-emtone*

PRO.NH 1SG-work

'This is my work'.

(4) *eto n-meto-ko-o'i tata-noviono, meme-noviono*

PRO.NH 1SG-say-ACT-*ri'i* father/Sir-PL.KIN Mum/Mrs-PL.KIN

'That is what I had to say, ladies and gentlemen'.

### 2.3. Trinitario indexation system.

Predicates are obligatorily marked with at least one person prefix or suffix. Third person suffixes are zero morphemes. Prefixes occur on intransitive verbs (active (5) and stative (6)), referring to their unique argument. They also occur on transitive verbs (7), referring to their agentive argument. Note that the same paradigm (presented in Section 3) is used on nouns to refer to their possessor (8).

(5) *n-ute-k-po*

1SG-come-ACT-PERF

'I just came'.

(6) *n-uuna*  
 1SG-be.good  
 'I am good'.

(7) *n-echji-ko-'e*  
 1SG-talk.to-ACT-2PL  
 'I am talking to you'.

(8) *n-ousa*  
 1SG-village  
 'my village'

Suffixes index the patientive argument of a transitive verb (9), or the unique argument of both nominal predicates (10) and an extra class of stative intransitive predicates (11).<sup>8</sup>

(9) *p-ewacho-k-a-nu*  
 2SG-replace-ACT-IRR-1SG  
 'Replace me!'

(10) *'jiro-nu-po*  
 man-1SG-PERF  
 'I was a man then'.

(11) *juiti 'chosi-nu-po*  
 now old-1SG-PERF  
 'Now I am old'.

There is a split in the alignment system: the argument of intransitive clauses is marked like an A on verbal predicates, while it is marked like an O with non verbal predicates. Taking into account all types of predicates and not only verbs, Trinitario displays a split-intransitivity alignment system, as defined by Merlan (1985), *inter alia*.

### **3. The pronominal system and third person prefixes.**

Table 1 presents the pronominal paradigms. From left to right are presented prefixes used on verbs and nouns, the person formative of demonstratives, then suffixes used on predicates, articles, and at the extreme right free pronouns.

#### **Table 1**

This table highlights the similarity of the pronominal paradigms, for which a unique diachronic source can be postulated. The different paradigms show few differences, and are comparable in categorization and form. The first two columns consist of bound person indexes that are subject to a rich system of morphophonemic rules.<sup>9</sup>

#### **3.1. Third person affixes.**

The pronominal system is a wonderful embodiment of a saliency effect: the more salient the referent is, the more finely the index will define it semantically. Within the third person, the basic distinction lies between non-human and human referents. The non-human category is not further refined. Within human, number distinguishes singular versus plural, the latter not being further categorized. Within singular human, a gender distinction is made. The feminine is categorized as such while the masculine exhibits two categories according to the gender of the speaker<sup>10</sup>. Thus human singular masculine referents are involve a form with a heavy semantic load, while, at the other extreme of the saliency scale, non humans are referred to with a form with a minimal semantic load and neutralizes distinctions of gender, number and gender of the speaker.

### 3.2. The third person *ty*- prefix.

Beside this series of third person indexes found in all pronominal paradigms, an extra marker for third person is found exclusively in the paradigm of person prefixes with verbs (first column of Table 1). This *ty*- (~ *t*-) prefix is an underspecified third person marker. It distinguishes neither humanness, nor number, nor gender of the referents or of the speaker, as illustrated in the different translations of (12) and (13). (13) also has the suffix *-ono* (realized *-m*), used on verbs to indicate the plurality of S or A uniquely in conjunction with the *ty*- prefix. It is likewise found on nouns to express plurality.

(12) *t(y)-epeno-po*

3-die-PERF

'He/she/it died'.

(13) *t(y)-epeno-m-po*

3-die-PL-PERF

'They died'.

Synchronically, the *ty*- prefix is realized /t/ preceding the palatal vowels /i, e/ and all the consonants but /x/ <j>. Preceding the vowels /a, o, u/ and /x/ <j>, it is realized as a palatal occlusive [c], transcribed <ty> in the orthography. This is important since both the underspecified *ty*- prefix and the specified *ta*- prefix can surface as /t/, cf. note 9. For this reason, these prefixes are written *t(y)*- and *t(a)*- in the first line of the examples when they are realized /t/. Neither the form nor the category *ty*- expresses (third person unspecified) can be traced back to Proto-Arawak (Payne 1987). Only two geographically close Arawak languages



(Paunaka and Baure) also display a *ti-* prefix, though with a somewhat different distribution (Danielsen, this collection).

In the rest of this article I investigate and compare the distribution of *ty-* and the *ma-*, *ñi-*, *s-*, *ta-*, *na-* forms. How does an underspecified form coexist in the same domain with a series of specified forms? Why would a language have developed such a marker? The alternative encoding of third person arguments is restricted to the prefix position on verbs, to refer to the subject (S<sub>a</sub>/A) of an intransitive or a transitive verb. The aim of this paper is to explain this differential marking for S/A, by determining which form (unspecified or specified) is used when a third person subject is indexed on a verb. It seeks to explain the coherence of such a system, and consequently the rationale for having these two options.

This question is crucial for the Mojeño language:

"All the grammarians that have studied the Mojo languages have come across the difficult point of the *ty-* prefix" (Olza Zubiri et al. 2002: 523, my translation)

In the *Gramática Moja Ignaciana* (Olza Zubiri et al. 2002), two chapters are devoted to the topic, yet the main author is not completely confident about the analysis. The *Trinitario Grammar* (Gill 1957) addresses the question briefly (p. 75-76), but explains it in a way 'not only divergent, but contrary' to Olza's analysis (Olza Zubiri et al. 2002: 527, my translation). It should be noted that the Ignaciano and Trinitario dialects are comparable in the domain investigated in this paper. Two main divergences are the indexing behavior of deverbal nouns and the fact that in Ignaciano, the *ti-* prefix is optional on consonant-initial roots (Olza Zubiri et al. 2002: 478). This disagreement between these specialists of Mojeño morphosyntax is evidence for how challenging this differential third person subject marking is. My goal is to arrive at a coherent explanation of the problem. Both these works have been of great help in confirming, challenging and refining my intuitions.

#### 4. Differential S/A marking: General rules related to the transitivity of the verb and the person of the object.

The general rules stated below describe the basic distribution of third person prefixes (*ma-*, *ñi-*, *s-*, *ta-*, *na-* vs. *ty-*) according to verbal transitivity and the person of its object. They predict the correct form of the third person subject index (in bold in the examples), except for some constructions that are presented in Sections 5 and 6.

A marker of the *ma-*, *ñi-*, *s-*, *ta-*, *na-* set (abbreviated as the *ma-* set) is used to express a third person subject on transitive verbs with a third person object (14) or a complement clause in object position (15). The index defines the subject in terms of animacy, gender and number. Recall that there is no suffix form for third person object.

*ma*-transitiveV (O3)

(14) *ma* 'moperu-gra **mu-em**-o-po to jani-ono

ART.M child-DIM 3M-see-ACT-PERF ART.NH bee-PL

'The little boy saw the bees'.

(15) **ta**-komnu to v-ipruj-ch-a

3NH-need ART.NH 1PL-cure-ACT-IRR

'The animals need to be cured. (Lit. They (non-humans) need that we cure them).'

The *ty-* prefix is used for a third person subject on intransitive verbs (active (16), stative (17)) and on transitive verbs with a SAP object, itself indexed on the verb with a suffix (18).

*ty*-intransitiveV

(16) **t(y)**-yom-po

3-go-PERF

'He/she/it/they went'.

(17) *ty-uunanaji s-omuire*

3-be.beautiful 3F-also

'She is also beautiful'.

*ty-transitiveV-1/2*

(18) *ty-okpo-wokovi*

3-meet-1PL

'He/she/it/they meet us'.

Basically, indexes of the *ma-* set are used when two non SAP, i.e. two third persons, are involved. They play a disambiguating role, specifying some characteristics of one of the third persons, the subject. The *ty-* prefix is used in all other contexts. This means *ty-* is normally the only index to mark a third person S on an intransitive verb.

Ditransitive verbs follow the same rule as transitive verbs, their subject indexation depending on the person of the object. They take a prefix from the *ma-* set if the subject and objects are third persons (19), but take the *ty-* prefix if the suffixed object is an SAP (referencing the recipient) (20). What matters is the coexistence of two participants (always human in my corpus) as agent and recipient.<sup>11</sup> When both human participants are third person, then the *ma-* set is used to specify characteristics of the subject. Otherwise, when the recipient is a speech act participant, i.e. identified without ambiguity in the speech situation, the third person subject is referred to with the unspecified *ty-*.

*ma-ditransitiveV (O3<sub>RECIPIENT</sub>) (O3<sub>PATIENT</sub>)*

(19) *na-ejro-k-po no 'chañ-ono to ma-jórise.*

3PL-give-ACT-PERF ART.PL person-PL ART.NH 3M-feather.crown

'People give him his feather crown'.

*ty*-ditransitiveV-1/2<sub>RECIPIENT</sub> (O<sub>3</sub><sub>PATIENT</sub>)

(20) *t(y)i-jro-ko-vi to 'puuj-ono.*

3-give-ACT-1PL ART.NH medicine-PL

'He gives us medicine'.

An important point to note is that, in order to assign the correct person index to a root, its transitivity has to be determined in the discourse context, taking into account first, that transitivity is not assigned to lexical roots (many are ambitransitive) and second, valency-changing derivations.

#### 4.1. Ambitransitivity.

Agentive ambitransitivity is common in Mojeño Trinitario, as many verbal roots can, without morphological change, be used transitively or intransitively, i.e. without an object, their unique argument representing the agent. Ambitransitive roots are cross-referenced in discourse according to their transitivity in the context of the utterance. (21) shows, in the same utterance of a text, both uses of the same verbal roots, first without an object, second with a specific object.

(21) *ene t(y)-eu-ko-m-po, na-eu-ko-po to arusu*

and 3-sow-ACT-PL-PERF 3PL-sow-ACT-PERF ART.NH rice

'And they start to sow, they sow rice'.

Ambitransitivity was striking when eliciting vocabulary. Elicitation of isolated verb forms regularly results in verb forms prefixed with *ty*- (without any overt object in the case of semantically transitive roots, as in (23)).

(22) *ty-jopu*

3-be.white

'He is white'. (but also: 'she/it/they is/are white')

(23) *ema t(y)-echji-ko*

PRO.M 3-speak-ACT

'He speaks'.

When asked, speakers accept a specified third person prefix on some verbs, those that are ambitransitive. The specified third person prefix is used in the transitive construction, and the translation suggested by speakers contains an overt object (24). Speakers are nevertheless reluctant to utter an intransitive verb with a specified third person prefix out of context, as (25) shows, although we will examine in 6.2. a spontaneous example from a text.

(24) *ema mu-echjiko*

PRO.M 3M-speak-ACT

'He speaks to him'.

(25) *\*ta-jopu*

3NH-be.white

'It is white'.

#### 4.2. Valency-changing derivations.

Trinitario displays many valency-changing devices. Detransitivized roots are cross-referenced like intransitive verbs, and transitivized roots (with causative or applicative) like transitive ones. Once again transitivity in discourse is what matters. In (26) below, the first

verb is intransitive and thus its third person subject is cross-referenced with *ty-*. The second verb is transitive with a third person object (unexpressed); its third person subject is cross-referenced with a specified index (*ta-* because the dog is 'non human'). The third verb is the middle form of a transitive root, and takes *ty-* for its third person subject like any intransitive verb form. (27) shows twice the intransitive verb root *júnopo* 'to run', with the same subject 'the dog', given in the preceding stretch of discourse. The first occurrence indexes its third person subject with *ty-*, since it is intransitive, and the second with the specific non-human third person subject index *ta-*, since the verb is transitivized through causativization.

(26) *ene ty-junopo-po t(a)-omo te ta-chochoku to kjokkre*

and 3-run-PERF 3NH-carry PREP 3NH-edge ART.NH river

*ema t(y)-kooto-k-wo-pri'i te to ta-ji'u to kjovo*

PRO.M 3-hold-ACT-MID-PERF-ri'i<sup>12</sup> in ART.NH 3NH-antler ART.NH deer

'and (the deer) ran and took him (the boy) to the riverbank, he (the boy) held (himself) on to the deer's antlers'

(27) *ene ty-uch-ko-po te tneko ty-júnopo. ta-em-júnopo eto.*

and 3-go.out-ACT-PERF to outside 3-run 3NH-SOC.CAUS-run PRO.NH

'And it (the dog) ran out. It was running with it (a pot on its head).'

To summarize, the general rules stated in this section are based on both the transitivity of the verb form (in discourse, and after valency-changing derivation) and the person of the object. They are summarized in Table 2. Basically, the *ma-* set is used for a third person subject when the object is a third person (there is no suffix for third person object). It specifies characteristics of the subject, helping to disambiguate the identity of the participants.

Third person subjects are indexed indifferently with *ty-* in all other situations, i.e. on intransitive verbs and on transitive verbs with a first or second person object.

## Table 2

### 5. Differential S/A marking: Particular cases related to the continuum of transitivity.

Beside the rules stated above, some extra rules apply to a few constructions. Descriptions of these by Olza or Gill were helpful to consolidate my analyses.<sup>13</sup> In the following cases, the relative distribution of *ma-*, *ñi-*, *s-*, *na-* and *ta-* vs. and *ty-* does not strictly follow the distribution based on valency and the person of the object. The selection of a marker of the *ma-* set or *ty-* depends on further parameters, most of which are related to the continuum of transitivity.

#### 5.1. Indefinite object.

This parameter is not mentioned by Olza or Gill, but corresponds to the "individuation of O" in (Hopper and Thompson 1980). Most often this parameter results in differential object marking cross-linguistically, but in Trinitario, it results in differential subject marking, as in (28). (29) shows that a verb with an indefinite object obligatorily encodes a third person subject with *ty-*. An indefinite NP can basically be defined by the absence of the article.

(28a) *s-ero-po eto to sawari-omo.*

3F-drink-PERF PRO.NH ART.NH tobacco-liquid

'She drank it, the tobacco juice (juice of chewed tobacco used as a remedy).'

(28b) *t(y)-ero-no v-eesa.*

3-drink-PERF-PL 1PL-chicha

'They drink our *chicha* (traditional beverage).'

(29a) *t(y)-ni-k-po to paku ta-mut-chujcha*

3-eat-ACT-PERF ART.NH dog 3NH-all-just

'Now the dog eats anything'.

(29b) \**ta-ni-ko* *ta-mut-chujcha*

3NH-eat-ACT 3NH-all-just

'It eats anything'.

## 5.2. Negative subject.

Another parameter corresponds in some way to what Hopper & Thompson call "affirmation". While negative sentences obey the general rules, a negative subject triggers a *ty-* cross-reference marker, even on a transitive verb with a third person object, as in (30) and (31).<sup>14</sup> This case is identified by Olza Zubiri et al. (2002 : 511-516) for Ignaciano.

(30) *naj-na-eji* *ty-jikp-a*  
 3PL.INDET-IRR-HSY 3-answer-IRR

'No one answered him'.

(31a) *naj-ina* *t(y)-wach-ri-gi-a* *to* *n-epia-ru* *panu*  
 3PL.INDET-IRR 3-pay-PLURACT-ACT-IRR ART.NH 1SG-make-NOMZ bread

'Nobody bought the bread I made'. (elicited)

(31b) \* *naj-ina* *na-wach-ri-gi-a* *to* *n-epia-ru* *panu*  
 3PL.INDET-IRR 3PL- pay-PLURACT-ACT-IRR ART.NH 1SG-make-NOMZ bread

'Nobody bought the bread I made'.

## 5.3. Denominal verbs.



Word class changing derivations are common in Trinitario. Among those, *ko-* (~ *k-*) is a verbalizer with a proprietive (VBZ-cart 'to have a cart') manipulative (VBZ-pot 'to cook') or causative (VBZ-plantation 'to cultivate') meaning. Denominal verbs formed with *ko-* typically take *ty-* to refer to a third person subject, even when they apparently govern a second argument, as in (32) and (33).<sup>15</sup> On the whole, it seems they are extended intransitive predicates.

(32) *t(y)-k-ijare*            *Bernardo Noza Tamo*.

3-VBZ-name            Bernardo Noza Tamo

'His name is Bernardo Noza Tamo'. (he has-a-name Bernardo Noza Tamo)

(33) *movera 'chane-ni t(y)-ko-i'-ono*            *confirmacion*.<sup>16</sup>

many    person-PAST 3-VBZ-POSS-PL            confirmation

'Many people had their confirmation'.

However, at least one *ko-* denominal verb, *kochane* 'accompany' built on '*chane* 'person', takes the specified set of third person subject indexes.

(34) *ene ty-utsaru ma-ko-chane*            *to*            *pak-gira*

and 3-play            3M-VBZ-person            ART.NH            dog-DIM

'And he plays in the company of the little dog'.

I propose that while most *ko-* denominal verbs are extended intransitive, some are lexicalized as transitive predicates, as with *kochane*. This is obvious from its use with a SAP object, as in the following elicited example. The semantic result is also somewhat different, offering further evidence for the lexicalization hypothesis.<sup>17</sup> It can also be noted that in this

example, contrary to what occurs with most *ko-* denominal verbs, both participants being necessarily animate, a device for participant disambiguation may be crucial.

(35) *n-ko-chane-vi*

1SG-VBZ-person-2SG

'I accompanied you'.

Cases of ambitransitivity are also noted among *ko-* denominal verbs, cf. (36).

(36a) *ema t(y)-k-emtone* (elicited)

PRO.M 3-VBZ-work

'He works'.

(36b) *ene eto ma-k-emtone ma 'chane*

and PRO.NH 3M-VBZ-work ART.M person

'And this is what the man is working at'.

Denominal verbs show again that the distinction between intransitive and transitive verbs is not clear-cut, some sharing characteristics of both categories (two arguments, but intransitive indexation). Again, Trinitario is characterized by fluid transitivity. In line with Hopper and Thompson, this can be explained by the fact that most of these verbs do not express actions, in the way that prototypical transitive verbs do.

#### **5.4.Optative.**

The few examples of optative in my corpus conform to the optative sub-rule identified by Olza for Ignaciano: verbs in the optative mood take a specified prefix for their third person subject, whatever their transitivity (Olza Zubiri et al. 2002: 492-495, see also Gill 1957:68). Thus intransitive verbs and transitive verbs with a SAP object mark their subject with the *ma-*

set when in an optative clause, unlike as stated in 3.1. Optative clauses are moreover marked with the irrealis mood marker *a* (suffixed in most cases, rarely prefixed). (37) shows that both an intransitive and a transitive verb with a first person object use a *ma-* prefix for their third person masculine subject, whereas a *ty-* would be expected if the sentence were not optative. (38) is evidence that the use of the *ma-* set is triggered by the optative, rather than by the irrealis marker. The irrealis is present on both occurrences of the same verb. In the first clause, jointly with the use of a *ma-* set prefix, it expresses the optative. In the second clause, the irrealis triggers a temporal interpretation (not an optative one) and subsequently, the intransitive verb is indexed regularly, with a *ty-* prefix for its third person subject.

- (37) *ma-te-gi-a*            *te*        *pjoka*, *mu-em-ojn-a-nu*.  
 3M-come-ACT-IRR    in        DEM.NH    3M-see-REP-IRR-1SG  
 'Let him come here, let him come to see me!'

- (38) *ene*    *ma-siop-a*    *te*        *pjoka*.    *t(y)-sióp-a-po*,...  
 and    3M-enter-IRR    in        DEM.NH    3-enter-IRR-PERF  
 'Let him enter here. When he enters, ...'

A negative optative marked with *ku-* also triggers subject indexation with a specified index, whatever the transitivity of the verb (see Gill 1957: 88). The example below shows a specified third person plural index on an intransitive verb in the negative optative mood.

- (39) *py-joch-a*    *to*        *tapajo*    *puejchu*    *na-ku-siopo*  
 2SG-shut-IRR    ART.NH    door        in.order.to    3PL-NEG.IRR-enter  
 'Shut the door not to let them enter!'

The same effect is triggered by the apprehensive construction marked with *wichu* and the irrealis mood. It requires the specified set of indexes for a third person subject. The following example shows a transitive verb with a first person plural object displaying the specified non-human subject index.

- (40) *v-yan-a-po-ro*                    *wichu*   *ta-ni-gi-a-wokovi*                    *spugi-ono*  
 1PL-go-IRR-PERF-then    lest            3NH-eat-ACT-IRR-1PL    vulture-PL  
 'Then let's go lest the vultures eat us'.

This case is counterintuitive. Hopper and Thompson see the irrealis mood as a parameter for lower transitivity, while in Trinitario the optative mood triggers specific third person subject encoding, a rather 'transitive' marking. The explanation likely lies beyond the realm of transitivity.

### 5.5. Irregular verbs.

A few verbs do not follow the general rules but encode third person subjects exclusively with the specified third person prefixes, whether they have an object or not. These include *nosi* 'stay, keep.on', *tupiru* 'go.straight', *ke ~ ko'e* 'be.so', *koyemo* 'happen.to', *jicho* 'make, say', and less regularly *ou'o ~ ouriko* 'be.at, live'. In (41), the verb *jicho* also carries a specified third person index, although it is transitive with first person object suffix, another configuration where *ty-* would normally be expected.

- (41) *u-niko*    *ta-mutu*,    *ma-jicho-u-ri'i*    *ema*            *Viya*.  
 1.PL-eat    3NH-all            3M-make-1PL-*ri'i*    PRO.M            Lord  
 'We eat everything, the Lord made us that way'.

In this section, five cases were listed where the third person subject encoding does not follow the general rules governing the distribution of *ty-* vs. *ma-* based on a strict definition of transitivity in terms of valence and the person of the object. In some constructions, *ty-* is used where the *ma-* set is expected, and this seems to be systematically correlated with low transitivity on a transitivity continuum: indefinite object, negative subject, denominal verbs. Finally, the optative construction and some irregular verbs systematically use the *ma-* set, even when *ty-* is expected. This has been left unexplained for the time being.

#### **6. Differential S/A marking: Deviations on discourse grounds.**

Beside the constructions presented in Section 5, the general rules stated in Section 4 are violated in a few cases. Both the following configurations are observed: *ty-* occurs where a specified third person prefix is expected, or more rarely a specified prefix occurs instead of *ty-*. These exceptions seem to be triggered by discourse factors.

In a randomly selected text of fifteen minutes, the selection of the 220 third person prefixes was classified according to the type of rule it obeys, in order to account for the relative importance of the rules and the exceptions. The text under study is expository, a talk by Leonardo Jou Ichu on how to prepare a new field. This explains the absence of first and second person and of the optative mood. What stands out is that valence and the person of the object (Section 4) account for most of the cases (63 %). The rules more or less related to the continuum of transitivity (Section 5) account for another large set of cases (26 %), which means that the rules presented thus far account for 89 %, suggesting that transitivity is the key to third person subject encoding. Leaving aside the 10 forms that I am not able to account for, 14 cases of deviations to the rules remain, 10 with *ty-*, 4 with the *ma-* set, among which a few cases can be explained on discursive grounds. The remainder of this section focuses on problematic exceptions of this type (drawn from the whole corpus) and offers tentative explanations.

Sections 4 and 5 have shown that a third person subject could be encoded on the same root by either the unspecified *ty-* or a specified prefix, according to the transitivity of the construction. Transitivity depends on morphosyntactic and semantic features, such as valence, person or definiteness. However, elicited and text data show that the same clause can in some circumstances accept either marking, as illustrated by the elicited variants of (42) and the text examples in (43). Since this obviously cannot be accounted for on formal grounds, the explanation must be sought in the domain of pragmatics, i.e. in discourse.<sup>18</sup>

(42a) *ema t(y)-ko-pkare-ko to teja* (elicited)  
 PRO.M 3-VBZ-fall-ACT ART.NH tile  
 'He dropped the tile'.

(42b) *ema ma-ko-pkare-ko to teja* (elicited)  
 PRO.M 3M-VBZ-fall-ACT ART.NH tile  
 'He dropped the tile'.

(43a) *ma 'chane t(y)-emtio-k-ri'i*  
 ART.M person 3-get.lost-ACT-ri'i  
 'the lost man'

(43b) *ma 'chane mu-emtio-o-ri'i*  
 ART.M person 3M-get.lost-MID-ri'i  
 'the lost man'

Gill's description of the Trinitario indexation system, based on contrastive out of context examples, mentions pragmatic factors in the distribution of third person prefixes.

"When the variation form of the subject prefixes [*ma-*, *s-*, *ñi-*, *na-* or *ta-*] is used, it indicates that the object of the verb (stated or unstated) is being emphasized. In contrast, the *t* (or *ti*) [*ty-*] indicates that the subject of the verb is receiving the emphasis.

Ema tnico to cujpa.     He ate the yuca.

But with the variation form:

Ema manico to cujpa.     He ate the yuca.

[...]

Eno t-semono.             They are angry.

But:

Eno nasemo.             They are angry (at her, it, them, etc.)" (Gill

1957: 75)

Gill explains the alternation of indexation patterns in terms of *emphasis*. This term is not developed, but the translations of the examples (and the underlining) suggest focalization of the contrastive focus type. The second pair of examples is also analyzed in terms of emphasis rather than in terms of switch of transitivity. Moreover, the author is concerned uniquely with transitive verbs, and does not note the possibility of an intransitive verb being marked with a specified prefix. This analysis is difficult to adopt without a precise analysis of discourse data. Artificial examples do not convincingly inform on pragmatic functions and pattern frequency.

It is interesting to note that Olza's analysis of Ignaciano is the opposite. The author considers *ti-*, the cognate of Trinitario *ty-*, to be the unmarked default element, used in discourse to signal topic continuity.

"The *ti-* prefix is a 'low profile' prefix, a 'cold' or 'discreet' prefix, it doesn't stand out, is not contrastive, is used for discourse continuity rather than for

modification or new information". (Olza Zubiri et al. 2002: 525, my translation)<sup>19</sup>

Recall that in Ignaciano, *ti-* may be omitted, constituting a clear sign of non-markedness.

In the rest of this section, I investigate the pragmatic correlates of the alternative ways of encoding a third person subject in natural discourse, where the specific context of occurrence can be checked and the frequency of each type of deviation can be evaluated. Examples where *ty-* is used instead of the *ma-* set are examined (6.1), and then the rare examples where the *ma-* set is used instead of *ty-* (6.2 and 6.3). We will see that the approaches of Gill and Olza can be integrated, and that reference tracking and transitivity account once again for the distribution of the third person prefixes.

### 6.1. *ty-* used instead of the *ma-* set in discourse.

First, the data elicited via the *Questionnaire for Transitivity/Detransitivizing verb systems* (Nichols et al. 2004, Nichols 2005) suggest discourse effects on third person subject encoding. In the majority of sentences, *ty-* is used on an intransitive verb, and *ma-* on its transitivity counterpart as expected (all participants being masculine third persons). However, some examples show transitive verbs prefixed with *ty-*, as in (44b).

(44a) *Juan mu-em-'o to moto ma-ye'e ma Pedro.*

Juan 3M-see-ACT ART.NH motorbike 3M-POSS ART.M Pedro

'Juan saw Pedro's motorbike'.

(44b) *ema t(y)-ime-cho to ma-ye'e moto ma Juan*

PRO.M 3-show-ACT ART.NH 3M-POSS motorbike ART.M Juan

'He showed Juan his motorbike'.



Interestingly, the reverse configuration is never found in this dataset: no example of an intransitive verb prefixed with a specified third person index is attested. A plausible explanation for this deviation is that since the same virtual participants (Pedro and Juan) were suggested to the speaker for the pairs of sentences in the questionnaire, an artificial discourse line was created. The prefix *ty-* in (44b) would mark topic continuity, since the pronominal subject refers to a referent already introduced in the preceding sentence given in (44a).

Second, cases where a specified prefix of the *ma-* set is substituted by *ty-* are also common in natural discourse. The majority of occurrences of *ty-* encoding the subject of a transitive verb is found in agent nominalizations without overt nominalizer. In (45), the article *ñi* signals the embedding of the clause in an argument position and refers to the subject of the dependent verb. Indexation with *ty-* does not hinder reference tracking since normal constituent order (SOV) is respected within the nominalized clause and there is no real possibility of ambiguity between the participants.

(45) *ñi-kepripo ñi t(y)-ve-'-yo to ta-chuti.*  
 3M-arrive ART.M 3-take-ACT-FUT ART.NH 3NH-head

*ñi-yusti-k-po ñi-ve-'-po, ñ-om-po.*  
 3M-detach-ACT-PERF 3M-take-ACT-PERF 3M-carry-PERF

'The one who was going to take the head (of a slaughtered bull) came, he cut it, took it and carried it away'.

In (46), there is no article signaling agent nominalization. However, the suffix *-ri'i* marks an equation, between "the man" and the verb "to transform". Again *ty-* is exceptionally found for a third person subject on a transitive verb.

(46) *ene ty-ute-k-pu-iji ema ma viya t(y)-ekie-ri-k-ri'i,*

and 3-come-ACT-PERF-HSY PRO.M ART.M man 3-transform-PLURACT-ACT-*ri'i*

*ma-ekie-ch-wok-po.*

3M-transform-ACT-PL.O-PERF

'Then came the man who transforms people, he transformed them'.

The following pair of elicited examples highlights the pragmatic difference between a regular predication (47a) and an equative construction (47b). In (47b), the first element is a pronoun referring to the subject, the second element of the equation is plausibly an agent nominalization without overt nominalizer, but marked with *ty-*. In (47a), the predicate is the new information, while in (47b), it is the equation between the referent and some presupposed information that is new.

(47a) *esu s-itko-po ty-aj-ri-ko*

PRO.F 3F-know-PERF 3-write-PLURACT-ACT

'She already knows how to write'.

(47b) *esu t(y)-itko-po ty-aj-ri-ko*

PRO.F 3-know-PERF 3-write-PLURACT-ACT

'She already knows how to write / She is the one to already know how to write'.

(acceptable but weird, would mean that no other girls know yet)

This set of examples seems to be explainable by the correlation between transitivity and grounding<sup>20</sup> in discourse (Hopper and Thompson 1980). The core of Hopper and Thompson's article is that 'the foci of high Transitivity and low Transitivity correlate with the independent discourse notions of foregrounding and backgrounding respectively' (Hopper and Thompson

1980: 294). In Trinitario, most predicates carrying a *ty-* prefix for third person subject where a specified prefix is expected (according to rules of transitivity) are found in backgrounded sections of texts. Backgrounding can be done via the equative construction or via agent nominalization without overt nominalizing suffixes. For instance, compare the two forms of the verb *ve'o* 'take' in (45), where the subject and the object are equal. *ty-* occurs when the event is used as a scene-setting statement to introduce a referent (it is backgrounded); *ñi-* is found when the same event is an action of the storyline. The scenario is the same in (46). This example also exemplifies the correlation of 'lower transitivity' in background with the occurrence of the pluractional *-ri ~ -re* suffix. This high correlation is explained by the aspectual load of pluractionals: the more stative the process, the more probable it will participate in a background situation.<sup>21</sup>

The common deviations in the use of *ty-* on a verb on which the *ma-* set is normally expected can be explained by discourse factors, either the topicality of the subject or the backgrounding of the event expressed by the verb.

## 6.2. The *ma-* set instead of *ty-* on intransitive verbs in discourse.

Cases of the *ma-* set being used instead of *ty-* in natural discourse are less frequent. The exception presented in this section, a specified third person prefix on an intransitive verb, is surprising and unique in our corpus. The last predicate of (48) is an intransitive verb with a specified third person prefix *ta-* instead of *ty-*.

(48) *ema móperu te t(y)-imko ma-ko-chane*  
 PRO.M boy when 3-sleep 3M-VBZ-person

*to ma-ye'e paku. ene ta-emko t(a)-omuire.*  
 ART.NH 3M-POSS dog and 3NH-sleep 3NH-also

'The boy, when he is sleeping, is with his dog. And it is also sleeping'.

Specifying the subject of this clause does not seem crucial in terms of reference tracking since the referent is overtly expressed in the closest preceding constituent, and since the word *tomuire* 'also' explicitly refers to a non-human participant (cf. *ta-*) and only two participants are given, the boy and the dog. This exception can be explained in terms of contrastive focus, i.e. 'a constituent that identifies a subset within a set of contextually given alternatives' (Drubig and Schaffar 2001: 1079). This idea is corroborated by the presence of the same verb being used in the previous clause with another subject and 'also', that typically carries a focalizing function.

### 6.3. The *ma-* set instead of *ty-* on transitive verbs in discourse

A specified prefix is found instead of *ty-* on a transitive verb when its object is preverbal. Since object fronting is linked to pragmatic function, this non-standard encoding also reflects discourse effects. This is observed with *ko-* denominal verbs and verbs with an indefinite object.

Transitive *ko-* denominal verbs take *ty-* due to their low transitivity (Section 5.3). All the exceptions have in common that the object precedes the predicate. The verb *kíjare* 'to have as a name, to be called' takes *ty-* throughout the corpus, even though it has two arguments, as in (32). Only in one occurrence in my corpus does it take a specified prefix as subject, and it is also the only occurrence where the NP expressing the 'name' precedes the verb *kíjare*, and its subject *eto* follows.

(49) *eto*        *pjoka*        *to*        *ta-echji-s-'o*        *to*        *anjina,*  
 PRO.NH    DEM.NH    ART.NH    3NH-speak-ACT-APPL    ART.NH    angina

*ta-k-íjare*        *eto,*        *ene?*  
 3NH-VBZ-name    PRO.NH    and

'This one here is called *angina*, it is called that, right?'

Below is another example of a *ko-* denominal verb with a specified prefix as subject (see also 36b). Again, the 'normal' position of the subject and the object around the predicate is reversed. The use of the specified *ma-* (M) reveals the non-coreference of the subject with the preceding pronoun *eto* (NH). Since the subject is masculine, *eto* (NH) must be interpreted as the object. The expected form *tkoi'e* in example (50) would lead to the interpretation 'it (the book) has him, José Santos Noco'. Therefore subject prefixes are quite useful for reference tracking when the basic constituent order SVO is not respected.

(50) *ene etjo-o'i to ma-ye'e libro májiko,*  
and COP.NH-*ri'i* ART.NH 3M-POSS magic book

*eto ma-ko-i'e ema Jóse Santos Noko*  
PRO.NH 3M-VBZ-POSS PRO.M José Santos Noco

'And he had a magic book, José Santos Noco had this'.

Object indefiniteness normally triggers *ty-* subject indexation on the verb (Section 5.1). Some exceptions are found when an indefinite object precedes the verb.

(51) *ta-mutu s-árami, ta-mut-chujcha s-árami.*  
3NH-all 3F-admire 3NH-all-just 3F-admire

'She admires everything, she admires anything'.

The fact that object fronting triggers subject encoding with the *ma-* set explains some of the cases where the specified person prefixes are systematically used.

First, it may explain the behavior of some irregular verbs presented in Section 5.5. These verbs are almost systematically used with the object in preverbal position. For instance, *ou'o ~ ouriko* 'to be at, to live in' almost always takes a specified prefix for third person subject. (52b) shows that it can be prefixed with *ty-*. In this example, the object (location) is postposed to the verb, while in almost all other examples, the location (often *ene* 'there') precedes the verb (52a). The verb *jicho* 'say, make' always takes a specified prefix for a third person subject. In the majority of its occurrences, it is preceded by its object (the quoted speech) and followed by its subject (the speaker). Perhaps at some point the high frequency of the specified indexation due to constituent order triggered its extension to all cases by analogy, as in (41).

(52a) *ene ma-(o)u-ri-ko ma tata.* (elicited)  
 there 3M-be-PLURACT-ACT ART.M father  
 'My father is there'.

(52b) *ma tata ty-ou-ri-ko te m-peno.* (elicited)  
 ART.M father 3-be-PLURACT-ACT PREP 1SG-house  
 'My father is in my house'.

Second, the role of object fronting in subject encoding could explain the unconditional regularity of third person subject encoding with a specified prefix on object nominalizations without overt nominalizer. In such constructions ((53a)), the article that precedes the verb, while embedding the following clause in an argument position, refers to the object of the dependent clause. The NP following the dependent verb refers to the subject. In contrast, in agent nominalizations without overt nominalizer like (53b), the absence of a specified prefix

indicates a normal word order: the object follows the verb, and the subject precedes it (the non human article *to*, also used here to embed the nominalization in an argument position).

- (53a) *na-kopa-ko to na-ni-ko eno 'chañ-ono.*  
 3PL-kill-ACT ART.NH 3 PL-eat-ACT PRO.PL person-PL  
 'They killed it for the people to eat'.

- (53b) *na-kopa-ko to t(y)-ni-ko eno 'chañ-ono* (elicited)  
 3PL-kill-ACT ART.NH 3-eat-ACT PRO.PL person-PL  
 'They killed the jaguar (the one that eats people)'.

Finally, the effect of constituent order on subject encoding may also explain why when two sentences follow one another in a text and share arguments, the first can be indexed as intransitive (the following object being indefinite or new) and the second as transitive (the preceding object being then definite or given). This is illustrated below.

- (54) *t(y)-wach-ri-ko-m-po smoru, chiwa, wrayu, 'poji [...]*  
 3-pay-PLURACT-ACT-PL-PERF pig goat chicken duck  
  
*t(y)-ko-i'-om-po kwoyu, na-wach-ri-k-po t(a)-omuire.*  
 3-VBZ-POSS-PL-PERF horse 3PL-pay-PLURACT-ACT-PERF 3NH-also  
 'They bought pigs, goats, chickens, ducks [...], they already have horses, they bought them too.'

In conclusion, all the exceptions analyzed in this section (*ty-* instead of the *ma-* set described in 6.1., and the *ma-* set instead of *ty-* in 6.2 and 6.3) clearly pertain to pragmatics at the information structure level, as suspected by Gill. This paper supports his intuition, and

adds the possible use of a specified prefix where the unspecified one is expected, and a finer analysis of the function of indexation deviations based on the detailed description of the context of utterance. Deviating third person subject encoding is linked to discourse mechanisms like the encoding of pragmatic roles, foregrounding/backgrounding (via the choice of a transitive vs. equative construction, or the use of nominalizations) and reference tracking. To summarize, *ty-* can be used on transitive verbs when no referent ambiguity arises (with basic SVO word order) to signal topic continuity, or backgrounding of the event expressed by the verb. I therefore concur with Olza that *ty-* is a low profile prefix. The substitution of *ty-* by the *ma-* set is rarer: the *ma-* set is used on bivalent verbs that normally take *ty-* only when the object is focused in initial position, facilitating reference tracking. It is rarely used on an intransitive verb to put contrastive focus on the subject.

## **7. Conclusion : a differential third person subject marking system.**

Trinitario shows a split-intransitivity system with additional differential marking of third person A/S on verbs.<sup>22</sup> The distribution of subject indexes is basically dictated most of the time by rules that depend on the valence of the verb and more specifically the number of third person participants. When only the subject is a third person participant, it is marked with the unspecified *ty-*. When both participants are third person, the subject is marked with an index of the *ma-* set, semantically specified in humanness, number and gender. The distribution of subject indexes is however also correlated with inherent semantic properties of a participant, like the person or the definiteness of the object, with pragmatic roles like topic and focus and with general discourse functions like foregrounding and backgrounding. Contextual pragmatic and discourse properties are powerful enough to shortcut the general rules and lead to deviations in subject encoding. On the whole, the originality of the Trinitario indexation system lies in the fact that indexes, the basic function of which is to encode the person of the



subject (reference-tracking), are used more widely to encode various parameters of clause transitivity at the grammatical, semantic and discourse levels.

This differential marking system depends on the transitivity of the predicate in discourse, a system not surprising for an Arawak language. In Arawak languages, the indexation systems may depend on transitivity seen as a scalar, non binary notion, then displaying differential subject marking. For example, in the North Arawak language Añun, a third person subject is indexed with *a-* on an intransitive clause, on a clause of low transitivity, or when referring to an indeterminate subject (Patte 1992-1993). Indexation in Arawak languages also frequently depends on the discourse prominence of the arguments. In some North Arawak languages, there is a special cross-referencing prefix to mark a focused A/S<sub>a</sub> constituent, while person prefixes may be omitted in some other languages if A/S<sub>a</sub> is topicalized (Aikhenvald 1995).

The differential S marking system of Trinitario is iconic. One of the two encodings, the *ma-* set, constitutes, on the functional level, the 'marked' element. The 5 elements of this set are mainly used in configurations where the grammatical roles of the two participants can easily be confused, and clarifies the identity of one of them, the subject, by giving more semantic information. They are also used to express contrastive focus on S, or when O is fronted. In all these situations, one participant is highlighted. On the contrary, the semantically unspecified *ty-* is the default element. In the basic cross-referencing system, it marks third person when there is only one third person, and therefore no ambiguity to its referent. It is also used when the subject is indeterminate, i.e. displays inherent low saliency. At the discourse level, it is used to signal topic continuity or backgrounding. Obviously, the functions of *ty-* and the *ma-* set in marking transitivity and in reference-tracking are correlated with the basic feature opposing *ty-* and the *ma-* set: *ty-* is semantically unspecified, while the more specific *ma-* set facilitates reference to a participant in a more precise and salient way.

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TABLE 1

*TRINITARIO PERSON PARADIGMS*

	PREFIXES	DEMONSTRATIVE FORMATIVE <sup>23</sup>	SUFFIXES	ARTICLE	PRONOUN
1SG	<i>n-</i>	-	<i>-nu</i>	-	<i>nuti</i>
2SG	<i>py-</i>	-	<i>-vi</i>	-	<i>piti</i>
1PL	<i>vy-</i>	-	<i>-(wok)ovi</i>	-	<i>viti</i>
2PL	<i>a-</i>	-	<i>-'e</i>	-	<i>eti</i>
3M (male speaker)	<b><i>ma-</i></b> (~ <i>mu-</i> , <i>m-</i> )	<i>-ma-</i>	-	<i>ma</i>	<i>ema</i>
3M (female speaker)	<b><i>ñi-</i></b> (~ <i>ñ-</i> )	<i>-ñi-</i>	-	<i>ñi</i>	<i>eñi</i>
3F	<b><i>s-</i></b>	<i>-su-</i>	-	<i>su</i>	<i>esu</i>
3PL	<b><i>na-</i></b> (~ <i>n-</i> )	<i>-no-</i>	<i>-woko</i> (3PL)	<i>no</i>	<i>eno</i>
3NH	<b><i>ta-</i></b> (~ <i>t-</i> )	<i>-jo-</i> (SG) <i>-ma-</i> (PL)		<i>to</i>	<i>eto</i>
3	<b><i>ty-</i></b> (on verbs only) (~ <i>t-</i> )				

TABLE 2

GENERAL RULES IN THE DISTRIBUTION OF *TY-* vs. *MA-*, *NI-*, *S-*, *NA-* AND *TA-* ON VERBS

PREFIX	ROOT	SUFFIX
<i>ty-</i>	intransitive	
<i>ma-</i> set	transitive	
<i>ty-</i>	transitive	-1/2
<i>ma-</i> set	ditransitive	
<i>ty-</i>	ditransitive	-1/2 (recipient)

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<sup>1</sup> Preliminary versions of this paper have been presented at the *Research Centre for Linguistic Typology*, La Trobe University, 14 March 2007, at the Workshop on *Argument coding systems in Bolivian lowland languages* held at the *Centre d'Etudes des langues Indigènes d'Amérique* (CELIA), in Villejuif, 5-7 April 2007, and in the *Atelier de Morphosyntaxe* of the *Dynamique du Langage* (DDL) laboratory in Lyon, 5 December 2008. I wish to thank the participants of those meetings for questions and comments. My gratitude also goes to Keren Rice, Antoine Guillaume, Knud Lambrecht, Mark Peake, Scott DeLancey and an anonymous reviewer for their meticulous readings and comments.

<sup>2</sup> Both grammars of Ignaciano and Trinitario are high quality works. They are not easy to consult for linguists other than specialists of Mojeño. The former gives pages of non-segmented and unglossed examples, while the latter is designed as a pedagogical handbook with short vocabulary and grammar lessons built around made-up conversations, questions and answers, and exercises.

<sup>3</sup> The Trinitario phonological inventory is given below, with the practical orthography < > specified where different from the IPA conventions between slashes. Trinitario vowel phonemes are /i/, /e/, /a/, /o/, /u/ and the diphthong /æ/ <ae>, plus their long correspondants written by the doubling of the vowel, ie. <ii>, <ee>, <aa>, <oo>, <uu> and <ae>. Trinitario consonant phonemes are the oral stops /p/, /t/, /c/ <ty>, /k/, /ʔ/ <'>, the nasals /m/, /n/, /ɲ/ <ñ>, the fricatives /β/ <v>, /s/, /ç/ <gi, g>, /x/ <j>, the affricates /ts/ and /tʃ/ <ch>, the flap /r/ <r> and the glides /w/ <w, u> and /j/ <y, i>.

<sup>4</sup> Two of the texts are renderings of the Frog Story, a story book made out of drawings only (Mayer 1969).

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<sup>5</sup> The following abbreviations are used in this paper : ACT active; APPL applicative; ART article; CAUS causative; CLAS classifier; COP copula; DEM demonstrative; DIM diminutive; F feminine (singular); FUT future; INDET indeterminate; IRR irrealis; M masculine (singular); MID middle; NEG negation; NH non human; NOMZ nominalizer; PAST past; PERF perfect; PL plural; PL.KIN plural for kinship terms; PL.O plural of the object; PLURACT pluractional; POSS possessed form of the N; PREP preposition; PRO pronoun;; REP repetitive; SAP speech act participant; SG singular; VBZ verbalizer.

<sup>6</sup> In cases where the reference of the pronoun is ambiguous, a nominal phrase can be adjoined to the pronoun, and/or the pronoun is postposed to the verb.

<sup>7</sup> All the functions of this suffix have not been investigated yet (thus it is not glossed). In most cases, it seems to be used to mark an equative construction.

<sup>8</sup> It is not clear whether this class should be considered nouns, verbs or adjectives. They form descriptive predicates, including also some bodily processes. It is hard to tease them apart on semantic grounds from the class of non-agentive intransitive verbs.

<sup>9</sup> The morphophonemic rules concerning third person prefixes are as follows. The specified *ma-*, *na-*, and *ta-* third person prefixes undergo various morphophonemic processes. Their final /a/ is deleted when preceding vowels /a, o, u/. The sequences *mue* [mwe] and *tae-*, *nae-* [tæ-, næ-] are created when *ma-*, *ta-* and *na-* precede /i, e/. The vowel of the *ñi-* prefix is deleted preceding any vowel. The *ty-* prefix is realized /t/ in front of the palatal vowels /i, e/ and all the consonants but /x/ <j>.

<sup>10</sup> The glosses of pronominal forms are simplified in that M or F imply *human* and *singular*, and PL implies *human*. Gender of the speaker is not specified in the M gloss.

<sup>11</sup> My data do not provide any example of first or second person patients in a ditransitive construction.

<sup>12</sup> For a better understanding of this suffix, see note 7.



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<sup>13</sup> Only in complement clauses, which, according to Olza Zubiri et al. (2002: 495-500), trigger the *ti*-indexation in Ignaciano, do the Trinitario data differ from Olza's description of particular cases in Ignaciano. Verbs in complement clauses are indexed just like any independent verb in Trinitario.

<sup>14</sup> Surprisingly, Olza states the opposite: the verb following *najina...* would always carry a specified index for third person (Olza Zubiri, et al. 2002: 512-516). Some examples he offers contradict his assertion.

<sup>15</sup> Olza holds this as a rule for the Ignaciano dialect, even though some examples he gives show a specified index for a third person subject (Olza Zubiri, et al. 2002: 874-882).

<sup>16</sup> This is the way an older speaker, who knows little Spanish, pronounced the Spanish word 'confirmación'.

<sup>17</sup> A further hypothesis would be that denominal verbs the second argument of which is preferably human were first lexicalized into transitive verbs. This would need to be tested on more examples.

<sup>18</sup> More rarely, alternative subject encoding triggers differences in verbal meaning, perhaps in some way related to ambitransitivity or as a result of lexicalization. Speakers also sometimes try to point to a difference in TAM but this is neither clear nor consistent.

<sup>19</sup> El prefijo *ti*- es un prefijo de 'bajo perfil', un prefijo 'frío', 'discreto', no resalta, no destaca, no contrasta, sirve más a la continuidad del discurso, que a un cambio o introducción de información.

<sup>20</sup> "[...] in any speaking situation, some parts of what is said are more relevant than others. That part of a discourse which does not immediately and crucially contribute to the speaker's goal, but which merely assists, amplifies or comments on it, is referred to as BACKGROUND. By contrast, the material which supplies the main points of the discourse is known as FOREGROUND. Linguistic features associated with the distinction between

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foreground and background are referred to as GROUNDING." (Hopper and Thompson 1980: 280)

<sup>21</sup> However, (52) shows that indexation with *ty-* or the *ma-* set is independent of the presence of *-ri*. This pluractional suffix is not detransitivizing.

<sup>22</sup> The Trinitario differential third person marking differs in scope from many other differential third person marking systems because, on the one hand, it is limited to subject marking, and on the other hand, it is subject to factors beyond the domain of the clause. These characteristics make it typologically distinct from coreferential markers, fourth person (Anderson and Keenan 1985: 262), logophorics (Hagège 1974), switch-reference (Austin 1981: 309) and obviation systems (Aissen 1997).

<sup>23</sup> Several sets of demonstratives, based on different roots, are built on this personal paradigm. The demonstrative root is preceded with the person prefix, itself preceded with *p-*, as in *p-su-ka* 'DEM-F-near'.

**As particularidades da língua Emérillon entre as  
línguas Tupí-Guaraní: o caso da marcação de pessoa**  
**Françoise ROSE<sup>1</sup>**

A família Tupí-Guaraní é conhecida por sua grande homogeneidade lexical e morfológica apesar da grande extensão geográfica que ocupa. O Emérillon, que pertence ao subconjunto VIII da família Tupí-Guaraní, foi até recentemente pouco descrito e portanto quase nunca levado em consideração nos trabalhos sobre a família. Ora, apesar de ser uma língua tipicamente Tupí-Guaraní, naturalmente tem particularidades em relação às outras línguas da família. Algumas podem ser compartilhadas com as línguas do subconjunto VIII, outras podem ser específicas do Emérillon, cujo próprio desenvolvimento histórico o tornou uma língua bastante inovadora<sup>2</sup>. O intuito deste artigo é de apresentar as principais particularidades morfológicas e sintáticas da marcação de pessoa do Emérillon, um tema já

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<sup>1</sup> CELIA (CNRS/IRD), França. rose@vjf.cnrs.fr

<sup>2</sup> Sem descartar também a possibilidade de que algumas dessas particularidades possam, na verdade, ser encontradas em outras línguas não conhecidas por mim ou não descritas ainda.

particularmente apaixonante na família Tupí-Guaraní. Os traços linguísticos apresentados a seguir são contribuições interessantes aos níveis comparativo, histórico e tipológico ao mesmo tempo.

Geralmente, a marcação básica de pessoa no Eméillon parece comparável a das outras línguas Tupí-Guaraní, com um sistema hierárquico implicando duas séries principais de marcadores. Entretanto, o Eméillon mostra particularidades importantes nas formas morfológicas, nas configurações especiais que envolvem as duas pessoas da interlocução e na organização sintática da marcação de pessoa nas construções dependentes.

### **1- Particularidades morfológicas**

As particularidades morfológicas na marcação de pessoa do Eméillon em relação ao Proto-Tupí-Guaraní (Jensen 1990) são salientadas em caixa alta no quadro: destaca-se, especialmente, a mudança dos marcadores inclusivos e o desenvolvimento de três formas indeterminadas.

	Proto-Tupí-Guaraní				Emérillon		
	I <sup>3</sup>	II	III	IV	I	II	III
1 <sup>a</sup> SG	a-	če	wi-		a-	e-	
2 <sup>a</sup> SG	ere-	ne	e-	oro- (1→2SG)	ele-	de-	
1 <sup>a</sup> INCL	ja-	jane	jere-		si-	nōde-	
1 <sup>a</sup> EXCL	oro-	ore	oro-		olo-	ole- <sup>4</sup>	
2 <sup>a</sup> PL	pe-	pe	peje-	opo- (1→2PL)	pe-	pe- <sup>5</sup>	
3 <sup>a</sup>	o-	i-, c-	o-		o-	i-, Ø, o- t-	
indeterminado, geral, humano					za-	zo-/ polo-	

*Quadro 1 : Séries dos marcadores do Proto-Tupí-Guaraní e do Emérillon*

### 1.1- Os marcadores inclusivos

\*ja- e \*jane- do Proto-Tupí-Guaraní passaram a si- e nōde- em Emérillon, respectivamente. Embora nōde- possa ser um reflexo aceitável de \*jane- de acordo com a evolução fonética do Emerilon, a forma si-, que corresponde estruturalmente ao PTG \*ja-, deve ser explicada.

<sup>3</sup> A série I refere ao sujeito, a série II ao objeto e o marcador de série III é uma marca de correferencialidade.

<sup>4</sup> ~ olone-

<sup>5</sup> ~ pene-

Conforme Jensen, *si-* procede da seqüência *\*t-ja-i* (FIN-incl.I-3.II). Um argumento para essa análise é ilustrado no exemplo (1): o marcador inclusivo *si-* atualmente não é compatível com o prefixo de finalidade *ta-* ~ *t-* em Emérillon:

- (1) baʔezaʔu a-mumuŋ        **si**-zopodʒ            pita-kom.  
     \***ta-si**-zopodʒ
- comida    1SG.I-cozinhar    FIN.1INCL.I-nutrir menino-PL  
 Eu cozinho para que nós alimentemos os meninos.

### 1.2- As formas indeterminadas

Três formas indeterminadas se desenvolveram em Emérillon: *za-* para o S (2), *polo-* para o O e *zo-* para o possuidor (3).

- (2) nan-ãhã-te                aŋ        baʔek<sup>w</sup>əl    **za**-idu.  
 assim-somente-FOC    DEM    história        indet.I-ouvir  
 Assim se conta essa história.
- (3) **polo**-pihig        **zo**-kalakuli-kom        o-ikiɕʒ.  
 indet.II-agarrar    indet.II-dinheiro-PL    3.I-pegar  
 Eles agarram a gente e pegam o dinheiro deles.

O prefixo *za-* pode ser o resultado da evolução do PTG *\*ja-* que, pelo menos com verbos intransitivos, referia-se a um sujeito inclusivo. Enquanto isso, em Tupinambá, *ya-* referia-se a um sujeito não específico, mas somente com verbos transitivos (Rodrigues 1990).

Em Wayampi, *ja-* pode ter um sentido genérico com todos os verbos (Jensen 1990). Inspirando-me no trabalho de Rodrigues (1990), essa evolução pode explicar-se pelo fato de que o inclusivo e a forma indeterminada referem-se, ambos, a uma configuração onde a terceira pessoa não é focalizada.

A forma *polo-* está atestada em PTG como um nome de objeto genérico humano incorporado, como no seguinte exemplo do Chiriguano:

- (4) a-**poro**-mbóe. Chiriguano, Jensen 1998  
 1sg.I-pessoa-ensinar  
 Eu ensino (às pessoas).

Em Emérillon, *polo-* não pode ser analisado como um nome incorporado porque nunca se encontra como nome autônomo e não ocupa a posição de um nome incorporado, entre um marcador de pessoa e o verbo. Se gramaticalizou em marcador de pessoa indeterminada.

A origem de *zo-* fica sem explicação. Talvez poderia ser o resultado da evolução do recíproco PTG *\*jo-*, que parece desaparecido em Emérillon.<sup>6</sup>

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<sup>6</sup> O recíproco do Emérillon é agora exprimido por o morfema reflexivo *ze-*.

## 2- Particularidades nas configurações locais

As configurações locais implicam uma primeira pessoa e uma segunda pessoa que interatuam.

### 2.1- Quando uma primeira pessoa age sobre uma segunda pessoa

As formas para a configuração onde uma primeira pessoa age sobre uma segunda pessoa ( $1 \rightarrow 2$ ), isto é, as formas da série IV no quadro 1, estão analisadas como "porte-manteau" na maioria das línguas Tupí-Guaraní. Essas formas diferem parcialmente em Emérrillon e em algumas outras línguas, o que torna necessária uma nova análise.

No caso  $1 \rightarrow 2$  sg (5a, 5b), a forma *olo-* é utilizada, exatamente como em outras línguas TG.

#### (5) *olo-nupã*

- a) Eu bati em você.
- b) Nós batemos em você.
- c) Nós batemos (nele).

Entretanto, a expressão "porte-manteau" não parece adequada para *olo-* porque essa forma refere-se concretamente a um sujeito de primeira pessoa, e implica, em alguns contextos (como 5c), um objeto de



terceira pessoa, e em outros (como 5a e 5b), um objeto de segunda pessoa. O morfema *olo-* não exprime mais explicitamente a segunda pessoa nas configurações a) e b) que a terceira pessoa no caso de c). Por esta razão, preferimos considerar que nos três sentidos da oração (5), *olo-* sempre é o marcador de sujeito de primeira pessoa. A ausência de referência clara ao objeto de segunda pessoa pode explicar-se por razões socio-pragmáticas, de cortesia conversacional (Brown e Levinson 1987): frequentemente, as línguas evitam a combinação de dois marcadores referindo-se às duas pessoas da interlocução (Heath 1998), pela utilização, por exemplo, de uma forma plural ou de 3ª pessoa (como "vous" em francês ou "Usted" em espanhol) para uma segunda pessoa singular. Isso explicaria, também, que uma forma de primeira pessoa plural seja utilizada para o singular, enfraquecendo a primeira pessoa a fim de que a relação pareça menos ameaçada para o interlocutor.

Quando uma primeira pessoa age sobre uma segunda pessoa plural (1 (sg/pl) → 2 pl), o Emérillon

não utiliza uma forma correspondente à reconstrução de Jensen (1998) *\*oro-*, mas a forma *a-polo-*, como no exemplo (6).

(6) **a-polo-ekal**

**Eu** vos busquei /Nos vos buscamos.

Essa forma se afasta claramente de uma análise do *polo-* como "porte-manteau", já que consiste em dois marcadores: *a-*, em outras configurações como (7), sujeito de 1ª pessoa singular, e *polo-*, em outras configurações como (8), objeto genérico humano.

(7) **a-ekal.**

1sg.I-buscar

**Eu** busco.

(8) **polo-pihig**

indet.II-agarrar

Eles agarram **as pessoas**.

A mesma análise foi proposta por Cabral (2001), que explica as formas utilizadas para essa configuração em algumas línguas TG recusando a reconstrução *\*opo-* proposta por Jensen (1998). Aqui, um marcador indeterminado substitui um marcador de segunda pessoa, criando uma distanciação que atenua o confronto das duas pessoas da interlocução.

## 2.2- Quando uma segunda pessoa age sobre uma primeira pessoa

Em relação às formas que ocorrem nas configurações onde uma segunda pessoa age sobre uma primeira pessoa ( $2 \rightarrow 1$ ), elas diferem completamente das formas das outras línguas TG e impedem que se aplique a hierarquia habitual  $1 > 2 > 3$ .

Nas outras línguas TG, a configuração  $2 \rightarrow 1$  realiza-se por meio de um marcador prefixado e um pronome livre posposto ao verbo. Habitualmente, como no exemplo (9) do Tupinambá, seguindo a hierarquia  $1 > 2 > 3$ , o objeto de primeira pessoa está marcado prefixado ao verbo e o sujeito de segunda pessoa está expresso após o verbo, por meio de um pronome livre.

(9) **sjé** r-epják **pejepé.** Tupinambá, Jensen 1998  
 1sg.II r-ver 2pl.PRO  
 Vocês me vêm.

Entretanto, o sistema em Emérillon é totalmente diferente. Os dados do Emérillon para essas configurações estão apresentados no quadro 2.

S	O		
2 <sup>a</sup> SG	1 <sup>a</sup> SG	<i>ele-...</i> 2SG.I-...	<i>eleŋ</i> 2SG
2 <sup>a</sup> SG	1 <sup>a</sup> EXCL	<i>ele-...</i> 2SG.I-....	<i>olone-kom ~ oleŋ ~ oleleŋ</i> PRO1EXCL-PL
2 <sup>a</sup> PL	1 <sup>a</sup> SG	<i>pe-...</i> 2PL.I-...	<i>peŋ (~ eleŋ)</i> 2PL
2 <sup>a</sup> PL	1 <sup>a</sup> EXCL	<i>pe-...</i> 2PL.I-...	<i>olone-kom ~ oleleŋ</i> PRO1EXCL-PL

*Quadro 2 : Configurações 2 → 1 em Emérillon*

Em Emérillon como nas outras línguas TG, a configuração 2 → 1 realiza-se por meio de um marcador prefixado e um pronome livre posposto ao verbo. Portanto, uma análise com base na hierarquia 1 > 2 não é adequada, pois o marcador prefixado ao verbo refere-se sem ambigüidade ao sujeito de segunda pessoa, e não ao objeto de primeira pessoa. Em relação ao pronome livre, nas segunda e quarta linhas do quadro, ele se refere com evidência ao objeto de primeira pessoa, enquanto nas primeira e terceira linhas do quadro, refere-se a uma segunda pessoa, de modo redundante em relação ao marcador prefixado. Essas combinações não são econômicas nem lógicas, marcando duas vezes um sujeito de segunda pessoa

para referir-se a um sujeito de segunda pessoa e a um objeto de primeira. A aberração dos pronomes livres *eleŋ* e *peŋ* pode explicar-se pela possibilidade de serem resíduos do sistema antigo do PTG, quando esses pronomes marcavam o sujeito.

### **3- Mudança fundamental nas construções dependentes entre o Proto-Tupí-Guaraní e o Emérillon**

As construções dependentes<sup>7</sup> do PTG utilizam um sistema de marcação de pessoa diferente do sistema utilizado nas construções independentes.

Com efeito, nas construções independentes, o sistema é geralmente descrito como ativo-estativo com verbos intransitivos (série I para o sujeito agentivo, série II para o sujeito paciente), e hierárquico com verbos transitivos (série I para o S, série II para o O).

Nas construções dependentes, o sistema é chamado absolutivo porque é sempre o argumento absolutivo que está marcado, com a série II, seja ele sujeito do verbo

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<sup>7</sup> Isto é, as subordinadas temporais ou condicionais, os gerúndios, as construções com oblíquo topicalizado e as nominalizações.

intransitivo como em (10), ou objeto do verbo transitivo como em (11).

- (10) **syé** só-reme Tupinambá, Jensen 1990  
 1sg.II ir-se verbo intransitivo  
 Se eu vou, ...
- (11) **i-nupã-reme** Tupinambá, Jensen 1990  
 3.II-bater-se verbo transitivo, O1→S3  
 Se eu o bato, ...

Por outro lado, como ilustrado em (12) e (13), a correferencialidade entre esse argumento absolutivo da oração dependente e o sujeito da oração principal está marcada pela série III.

- (12) † [**e**-có-rVmV] ere-'ár PTG, Jensen 1998  
 2sg.III-ir-quando 2sg.I-cair  
 Quando (**você<sub>i</sub>**) foi, você<sub>i</sub> caiu.<sup>8</sup>
- (13) † [**peje**-pycýk-VmV] pe-'ar PTG, Jensen 1998  
 2pl.III-agarrar-quando 2pl.I-cair  
 Quando ele **vos<sub>i</sub>** agarrou, vocês<sub>i</sub> cairam.

Outra especificidade das construções dependentes das línguas Tupí-Guaraní é que podem prescindir do marcador de pessoa se o verbo é precedido por um nome pleno indicando S ou O.

- (14) **pajé** só-reme, Tupinambá, Jensen 1990  
 pajé ir-se  
 Se o pajé for, ...

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<sup>8</sup> A marca “i” indica argumentos correferenciais.

Uma característica do Emérillon é que esse sistema de marcação específico dos verbos dependentes foi abandonado para ser substituído pelo mesmo sistema que o dos verbos independentes, como ilustrado pelos exemplos (15) e (16).

- (15) **a-wig-a-nam**                      **o-ho-pa.**  
 1sg.I-chegar-a-SUB                  3.I-ir-COMPL  
 Quando cheguei, ele já foi.
- (16) **o-ijuṅ-ba-nam,**                  **o-pukuḍ.**  
 3.I-pôr-COMPL-SUB                  3.I-misturar  
 Quando acabou de pôr todas, ela misturou-as.

Essa mudança não é particular do Emérillon. É descrita por Jensen (1990) para cinco línguas dos subconjuntos I e VIII da família, e afecta um número de estruturas mais ou menos grande dependente das línguas. Concretamente, o sistema de marcação de pessoa em Emérillon agora não gera distinção entre as construções dependentes e independentes<sup>9</sup>.

Paralelamente a essa mudança, alguns sufixos de dependência se perderam, reduzindo assim o número das construções dependentes. A construção com

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<sup>9</sup> Por conseguinte, o modelo absolutivo e a marcação da correferencialidade não são utilizados mais, com exceção dos escassos casos de nominalizações e gerúndios (Cf.abaixo).

oblíquo topicalizado não se distingue de uma oração independente normal, como em (17).

- (17) aipo-po                      a-baʔe-tal  
 agora-RED                      1sg.I-fazer-FUT  
 Agora vou fazer algo.

Da mesma maneira, uma sequência de verbo principal mais gerúndio deve ser reanalisada como uma construção serial, como em (18) e (19).

- (18) a-ho                      a-zaug.                      construção sérial  
 1sg.I-ir                      1sg.I-banhar.se  
 Eu fui me banhar.
- (19) o-kual                      zandupa                      o-kilig. construção sérial  
 3.I-encontrar                      zadupa                      3.I-ralar  
 Ela encontrou zadupa e o ralou.

Permanecem, entretanto, traços do modelo absolutivo no Emérillon em algumas nominalizações e gerúndios transitivos que subsistem. Mas essas duas construções são escassas pois são somente resíduos do sistema e funcionam apenas com verbos transitivos. Por isso, “absolutivo” não é mais uma expressão apropriada, já que nas nominalizações e no gerúndio do Emérillon é o objeto que está sistematicamente marcado sobre o verbo pela série II ou por um nome



pleno, mas nunca o sujeito<sup>10</sup>. Os exemplos (20) a (22) ilustram isso.

- (20) kob          **i**-baʔe-hal.                                  nominalização  
       COP        3.II-fazer-NOMN  
       Tem alguém para fazer isso.
- (21) logements sociaux-kom a-ɨnuŋ-okal          **i**-mōdo.  
       logement.social-PL        1sg.I-pôr-CAUS 3.II-fazer.ir  
       Eu faço pôr muitas moradias populares. (lit : Eu faço  
       pôr moradias populares e as faço ir).                                  gerundio
- (22) o-ho-tal          **pulelu**-l-eka.                                  gerundio  
       3.I-ir-FUT        sapo-RELN-procurar (ekal)  
       Ele vai procurar o sapo.

Uma outra consequência da mudança na marcação de pessoa das construções dependentes é o desaparecimento quase total dos marcadores de correferencialidade sobre os verbos<sup>11</sup>.

### Conclusão

O Emérillon mostra importantes particularidades no que diz respeito à marcação de pessoa : a evolução dos marcadores de pessoa, das configurações locais e da organização sintática da marcação de pessoa nas construções dependentes.

<sup>10</sup> Para que o sujeito seja marcado, o verbo deveria ser intransitivo.

<sup>11</sup> Só podem aparecer com as escassas nominalizações.

Embora essa língua compartilhe quase todo o resto de seu sistema com as outras línguas Tupí-Guaraní, ela tem um caráter inovador<sup>12</sup>, particularmente visível na marcação de pessoa.

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<sup>12</sup> Esse caráter possivelmente não é específico do Emérillon, mas de todas as línguas do subconjunto VIII.

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# The origin of serialization

## The case of Emerillon

Françoise Rose

Dynamique du Langage (CNRS, Université Lyon2), France

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.

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.<sup>1</sup>

## 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)
- 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

Clause-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: 407)

- (1) *ùn fàn gáli nù è.* juxtaposition  
 1SG.S dilute gari drink 3SG.O  
 I diluted gari and drank it.
- (2) *ùn fàn gáli 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 ìku sùgā (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 occurred 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 (this refers to the *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.<sup>2</sup>

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) | <i>a-weč̣u-tar</i>                               | <i>a-zaug</i>   | <u>serial</u>     |
|     | 1SG.I-go.down-FUT 1SG.I-bathe                    |                 |                   |
|     | I am going down (to the river) to bathe.         |                 |                   |
|     |  |                 |                   |
| (6) | <i>a-weč̣u-tar</i>                               | <i>t-a-zaug</i> | <u>non-serial</u> |
|     | 1SG.I-go.down-FUT <b>PURP</b> -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) | <i>o-nan</i>          | <i>o-ze-mim</i> | <u>serial</u> |
|     | 3.I-run 3.I-REFL-hide |                 |               |
|     | He runs to hide.      |                 |               |

- (8) *zawar o-nan i-ɕɔwi* non-serial  
 dog 3.I-run 3.II-from  
 The dog runs away from him.
- (9) *kor zawar o-ze-mim i-ɕɔwi* 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-nan, o-weraho, o-pirog,* non-serial  
 manioc basket-in 3.I-put 3.I-carry 3.I-peel  
*o-kusug, o-kirig.*  
 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* [oʔat̚]³ non-serial  
 rain 3.I-fall  
 The rain is falling.
- (13) *aman o-ʔar o-ʔu* [oʔaroʔu] serial  
 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) *iar-a-pe a-ijunɨ sibo o-ho o-weta-ŋ-a-maʔē.* 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) *kor o-poʔo tupa t-o-wir 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)ŋ*. 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-ekar o-wawag-oŋ.* serial  
 3.I-search 3.I-wander-PL.S  
 They look for him all over the place.
- (17) *o-wur o-ho-ŋ wate-koti.*  
 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-popor o-ho.* serial  
 Emerillon-PL 3.I-scatter 3.I-go  
 The Emerillon scattered (away).
- (23) *o-kuar zadupa o-kirig.* 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 system applies to both independent and dependent clauses (with the exception of gerundive 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 *k<sup>w</sup>i* in (24), the subject *iji* in (25), the object *baʔezaʔu* in (25) or the postpositional phrase *ʔi-b* in (26) can be inserted in between the verbs of the series.

- (24) *o-ʔu(r)-tar k<sup>w</sup>i poro-mō-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-ker-o-nam, o-ho i-(j)i baʔezaʔu o-mumuŋ-ō.* 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-por-eze ri-b o-ra-η.* 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 coreferentiality 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.<sup>4</sup> 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)  
 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  $\leftrightarrow$  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  $\leftrightarrow$  asyndesis)  
Explicitness 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 bólù s̀ yì kóxò*  
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-ijnun t-o-č̣u.* purpose subordination  
3.I-put PURP-3.I-cook  
He puts it to cook.
- (29) *zapara-koti o-mōbor 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,<sup>5</sup> person marking on the verb being compulsory.

a. **Intransitive V1 and V2**

This is by far the most frequent combination.

- (30) *wir o-apar-a-r-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-ekar-oy* serial  
 3.I-go 3.III-pet 3.I-search-PL.S  
 They go and look for their pet.
- (32) *o-iba o-ho o-ekar-oy* serial  
 3.III-pet 3.I-go 3.I-search-PL.S  
 They go and look for their pet.
- (33) *o-ho o-ekar-oy 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-zopođ.* 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-re-da ipi a-ezar 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-pozo inja i-ɕuɓe o-meɓeɲ.* serial  
 3.I-pick fruit.sp. 3.II-to 3.I-give  
 He picks an inja and gives it to him.

- (38) *o-eraho o-bo-za o-ɾek<sup>w</sup>ar.* 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-ekar 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-icur-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 xi-r-upi o-icur o-mumuɲ-ō baɓe.* 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-r-upi*                      *o-wir*                      *o-ʔa.*                      serial  
 window-REF-RELN-through 3.I-break.away 3.I-fall  
 He fell through the window.
- (43) *o-pihig-on*    *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 iŋa*    *i-ʒupe o-meʔeŋ.*                      serial  
 3.I-pick fruit.sp. 3.II-to 3.I-give  
 He picks an iŋa 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-manō-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) *wiʔ-a-kom o-ze-mō-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-tarawaɕ.* serial  
 3.I-go field-in 3.I-work  
 He went to work in the field.
- (50) *o-ʔur o-kaʔa-kaʔar 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-mō-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 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-koti o-(w)er-aho kaʔi o-mo-ātā wira-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 reason for the distinction between asymmetrical and 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): *ʔur* ‘come, movement towards the reference point’, *ho* ‘go, movement away from the reference point’, *ʔar* ‘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 expresses direction, highlight the importance of expressing the deictically defined direction towards (57) or away from (58) the point of reference.

- (54) *tapug o-por-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-āhā karupa-r-ehe o-zebarachʔ 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) *kazi o-weɕʒu o-ʒu* serial  
 monkey 3.I-go.down 3.I-come  
 The monkey is coming down.
- (58) *kazi o-weɕʒu 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-wur-a-nā 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-ere-zaug!* purpose subordination  
 2SG.IMP-pass PURP-2SG.I-bathe  
 Go and bathe!
- (63) *e-pihig aʒi-am t-ere-mō-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 expresses 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-ere-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 discourse 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 (*gerundio*) 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 coreferential 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<sup>6</sup> and gerundives. It differs from the hierarchical indexation 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.<sup>7</sup>

**Table 1.** Indexation systems in Proto-Tupi-Guarani

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



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 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 [kununí kuáp-a]*  
 3.I-come boy meet-GER  
 He came to meet the boy.

An intransitive gerundive, having necessarily a subject coreferential with the main subject, must be indexed for its subject with a Set III (coreferential 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:<sup>8</sup> 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-ikič̣ puceru-kom-a-wi i-mebir Ø-eraho kizi.*  
 3.I-take toad-PL-REF-ABL 3.II-son 3.II-carry then  
 Then he took their<sub>i</sub> child from the toads<sub>i</sub> and carried it away.

- (70) *o-ikič̣ 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 gerundive construction (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

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) *aèramu 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 'gerund', 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 coreferential 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 diachron-

ic source of the Emerillon serial verb construction presented in Section 2. Table 2 compares the two constructions.

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

	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	<i>-abo ~ -ta ~ -a</i> final /r/ deletion	loss of suffixes	no suffixes final /r/ deletion
indexation pattern	absolutive and coreferential (dependent)	shift in indexation pattern	hierarchical (independent)

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.<sup>9</sup> 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.

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) *wyrãzi 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-kuar zadupa o-kirig*  
 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, 16)

- (78) † [*e-có-rVmV*] *ere-ʔar*  
 2SG.III-go-SUB 2SG.I-fall  
 When I left, I fell.

Emerillon

- (79) *o-ijnun-ba-nam, o-pukuch̃.*  
 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<sup>10</sup> 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 characteristic that seems anomalous in the synchronic system. Verb roots ending with a final *r* (like *ʔar* ‘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-wir o-ʔa wira-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 *r*. 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. Moreover, they share the same subject and object and the same TMA and negation (carried by the first verb only), just like serial verbs.

- |      |   |                |                  |
|------|---|----------------|------------------|
| (84) | <i>siriɕ o-ikiɕ o-wi</i>                  | <i>Ø-eraho</i> | <u>gerundive</u> |
|      | IDEO 3.I-take 3.III-mother 3.II-carry     |                |                  |
|      | He took his mother and carried her.       |                |                  |
|      |   |                |                  |
| (85) | <i>d-o-ikiɕ-i o-wi</i>                    | <i>Ø-eraho</i> | <u>gerundive</u> |
|      | NEG-3.I-take-NEG 3.III-mother 3.II-carry  |                |                  |
|      | He did not take his mother and carry her. |                |                  |
|      |   |                |                  |
| (86) | <i>o-ikiɕ-tar o-wi</i>                    | <i>Ø-eraho</i> | <u>gerundive</u> |
|      | 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 in 3.6.2 below). Thus, in example (87), the main verb *ijunʉ* is marked for the first person subject with Set I (*a-*), and the gerundive *mōdo* 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-ijun-okar i-mōdo-r-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 *r*), 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-tar pureru-r-eka* gerundive  
 3.I-go-FUT toad-RELN-search  
 He goes and looks for the toad.
- (89) *o-ekar 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 *ekar* 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-zor t-ere-poʔo amō 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-mōdo sipara.* 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 *ezar* (93)).

(92) *a-erahoraho 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-r-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 ?i-b i-mōbo* 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<sup>w</sup>a beku-r-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) *akiki 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 /r/ as illustrated in (99). This suggests that SVCs with a final transitive verb do not directly derive diachronically from the gerundive construction (otherwise final /r/ 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-ekar-orj.* 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.<sup>11</sup> An example is given below (see also (88) and (97)).

- (100) *kōzem oro-ho-tar Ø-esag t-oro-wikipočj.* gerundive  
 tomorrow 1EXCL.I-go-FUT 3.II-see PURP-1EXCL.I-fish  
 Tomorrow we'll go and see about fishing.

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 *itʔig*, 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-wir-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) *menenō*    *o-popor*    *o-kʷa-n*    serial  
 Emerillon 3.I-scatter 3.I-pass-CONT  
 The Emerillon people scattered and went away.
- (103) *o-bo-popor*      *mereŋō-kom*    *Ø-ero-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.<sup>12</sup> 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).

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.<sup>13</sup> 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<sup>14</sup> 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.

- (104) *e-r-erur*                                      *Ø-eza.*    gerundive  
 1SG.II-RELN-take.back 3.II-leave  
 He took me back and left me.

Table 3. Emerillon types of gerundives in the corpus

<i>wa</i>	eat		<i>i-</i> / NO RELN
<i>mō-bor</i>	throw	CAUS-jump	<i>i-</i> / NO RELN
<i>mō-do</i>	send	CAUS-go	<i>i-</i> / NO RELN
<i>mo-ze-mim</i>	hide	CAUS-REFL-hide	<i>i-</i> / NO RELN
<i>itfɨg</i>	drop		∅- / RELN
<i>esag</i>	see		∅- / RELN
<i>eta</i>	eat		∅- / RELN
<i>ekar</i>	search		∅- / RELN
<i>aha</i>	for, look for		∅- / RELN
<i>ezar</i>	leave, put down		∅- / RELN
<i>mimujɨ</i>	cook		∅- / RELN
<i>er-aho</i>	carry	CAUS.COM-go	∅- / RELN
<i>ero-kwa</i>	pass	CAUS.COM-pass	∅- / RELN
<i>ero-wawag</i>	wander	CAUS.COM-wander	∅- / RELN
<i>ir-ur</i>	bring	CAUS.COM-come	∅- / RELN

- (105) *e-nupã e-peteg ∅-itfɨg* 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).<sup>15</sup> 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.

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 pro-

ductive, 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 *maɾẽ* (108) and *ɾu*. Beside, *esag* could be a case of lexicalization into an idiomatic expression with the meaning 'for a try'.<sup>16</sup>

(107) *kõɾem oro-ho-tar Ø-esag t-oro-wikipoɕ* 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-maɾẽ.* independent verb  
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-koti o-mõdo* independent verb  
above-towards 3.I-send  
He is sending it in the air.

(110) *logements sociaux-kom a-ijunɔ-okar i-mõdo-r-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) *wir o-apar-a-r-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 hypothetical scenario of emergence of a serial verb construction in Emerillon, it probably emerged when intransitive gerundives had lost their suffixes and replaced their coreferential 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.** Change of position on the clause linkage continuum from PTG gerundives to Emerillon SVCs

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

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 do not directly confirm the idea that asymmetry is necessary for the development of converbs, but 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-syntactic 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 and 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	OBTOP	oblique topicalization
*	ungrammatical	PERF	perfect
3.II	Set II third person index	PL	plural
CAUS	causative	PL.S	plural of subject
CAUS.SOC	sociative causative	POST	postposition
COMPL	completive aspect	PRO	pronoun
CONJ	conjunction	PTG	Proto-Tupi-Guarani
CONT	continuous	PURP	purposive
DEF	definite article	RED	reduplication
DEM	demonstrative	REF	referential
EXCL	exclusive	REFL	reflexive
FOC	focus	REL	relativizer
FUT	future	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)
GER	gerundive		
IDEO	ideophone		
IMP	imperative		
INCL	inclusive	S, A, P	argument of intransitive verb, agent of transitive verb, patient of transitive verb
INDET	indeterminate		
INJ	injunctive	SG	singular
ITER	iterative	SUB	subordination
NEG	negation	SVC	serial verb construction
NF	non-final	TMA	tense, mood, aspect
NOMN	nominalization	TRANSL	translative

## Notes

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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 — 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.
3. In the absence of an alveolar voiced stop in the Emerillon phonological system, the voiced correspondent of the unvoiced alveolar stop [t<sup>h</sup>] is /r/.
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).
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.
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).
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.
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.
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).
10. In this position, no predicate of the class using Set II to index S has been found.
11. All examples seem to belong to the ‘motion’ type.
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.
15. Slavic languages also show a third person coreferential marker that took over all persons marking in a coreferential context (Creissels p. c.).
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-môdo-we-na iɕe-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.

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### *Author's address*

Françoise Rose  
 Dynamique du Langage  
 Institut des Sciences de l'Homme  
 14 avenue Berthelot  
 69363 Lyon cedex 07  
 France

francoise.rose@univ-lyon2.fr



## **A shift in dependency-marking away from non-finiteness.**

### **From Proto-Tupi-Guarani to Emérillon<sup>1</sup>**

*(Soumis en 2010 à Diachronica)*

#### Summary

In Proto-Tupi-Guarani (Jensen 1998), dependent clauses were marked with subordinating suffixes and a special indexation system on verbs such that they can be considered as non-finite nominalizations. In Emérillon, a Tupi-Guarani language of French Guiana, most of the corresponding dependent constructions nowadays use a different indexation system, the same indexation system than that found in independent clauses, and most of the dependency-marking suffixes have been lost. Comparing the different stages of change in various dependent constructions in Emérillon, this paper proposes a historical sketch of a change away from non-finite nominalizations towards finite subordination. It shows how this change is gradual and affects some types of dependent constructions more deeply than others.

#### **1. Introduction**

Tupi-Guarani is a branch of the Tupi family, and consists of about forty languages spoken throughout the Amazon basin. In Proto-Tupi-Guarani as reconstructed by Jensen (1998a), dependent clauses<sup>2</sup> were marked by subordinating suffixes and a special indexation system on dependent verbs. Jensen (1990) studied the change of indexation system in dependent clauses in five languages of sub-groups 1 and 8 of the Tupi-Guarani family. Emérillon, a language presently spoken in French Guiana, belongs to sub-group 8 of Tupi-Guarani languages, one of

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<sup>1</sup>I want to express special gratitude to Francesc Queixalós, Cheryl Jensen and Spike Gildea for their insightful comments and their support.

<sup>2</sup> "A dependent clause is one that depends on some other clause for at least part of its inflectional information." (Payne 1997:306)

the sub-groups that underwent those changes. However, Emérillon was not included in Jensen's study because it was not described at that time. In this language, most of the corresponding dependent constructions nowadays use the same indexation system as the independent verbs, and most of the subordinating suffixes have been lost. The present paper therefore confirms Jensen's results with one more language. However, while her study focused on change in indexation (from ergative/absolutive to nominative/accusative), this paper will also investigate the loss of the subordinating suffixes and further changes affecting the dependent clauses. On the whole, the present analysis will take a larger perspective and treat the general change in dependency-coding as a move away from nominalization, towards finite subordination. Moreover, Emérillon provides new information that permit to postulate the preceding and following steps of the shift described by Jensen. Section 2 describes the independent and dependent clauses of Proto-Tupi-Guarani such as reconstructed by Jensen. Section 3 analyzes their evolution in Emérillon, detailing the different changes and analyzing them in a coherent and gradual shift away from nominalization. Section 4 focuses on the emergence of other finite subordinate clauses not mentioned by Jensen, a follow-up to the type of changes postulated in Section 3.

## **2. Independent and dependent clauses in Proto-Tupi-Guarani (based on Jensen 1990)**

A reconstruction of Proto-Tupi-Guarani (PTG) has been proposed by Jensen in 1990, on the basis of the languages then described. This means Emérillon data were not taken into account in this reconstruction. When not specified otherwise, examples in this section are from Tupinambá (Jensen 1990), an extinct Tupi-Guarani language considered to be conservative.

### **2.1. Independent clauses in Proto-Tupi-Guarani (PTG)**



This section presents the person indexation of independent clauses in PTG. Nominal predicates and non-agentive intransitive predicates (analyzed as nouns by some authors, as verbs by others) will be disregarded in this paper, leaving a different view of the indexation system than usually presented as primarily active-stative.<sup>3</sup> The PTG indexation system is then organized around a hierarchical indexation system, based on a morphological nominative-accusative distinction with two sets of person indexes. Indexes (clitics or prefixes) on the verb are obligatory. Set I indexes the nominative, i.e. the S of agentive intransitive verbs (1) and the A of transitive verbs (2).

(1) *a-só*

1SG.I-go

I went.

(2) *a-i-nupẽ*

1SG.I-3.II-hit

I hit it.

Set II indexes the accusative, i.e. the P of transitive verbs (3).

(3) *syé nupẽ*

1SG.II hit

He/she/they/you hit me.

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<sup>3</sup> Beside the on-going debate on the nominal or verbal nature of those predicates (see for example Meira 2006, Queixalós 2001, 2006), reasons for excluding nominal predicates and non-agentive intransitive predicates from this paper are that first, they are rarely described (or attested) as predicates of dependent clauses both in PTG and in Emerillon. Second, since the indexation of this type of predicates does not differ in independent and dependant clauses, they are of little help to the present discussion. Third, being nominal or nominal-like, they are also of little help in the discussion on finiteness, i.e. regarding the nominal nature of the dependent clauses.

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 marked on the verb as in (2), followed by the *i-* prefix for third person P. When P is hierarchically superior to A, only P is indexed, as in (3). When both A and P are third persons, both are indexed on the verb, as in (4). I will not go into details for local forms, i.e. when  $1 \rightarrow 2$  or  $2 \rightarrow 1$  (see Jensen 1990: 122).

(4) *o-i-kutúk*

3.I-3.II-pierce

He/she/it/they pierced him/....

To summarize, PTG independent clauses show a nominative-accusative alignment, with a hierarchical system of indexation on transitive verbs.<sup>4</sup> Core arguments are not marked with case.

## **2.2. Major dependent-coding system in Proto-Tupi-Guarani: non-finite nominalized clauses**

Five types of dependent clauses have been reconstructed for PTG. Four of them are coded in a comparable manner with a special indexation system on their verb : the temporal/conditional subordination, various nominalizations, the gerundive and the oblique-topicalized construction. A last one (the *-ba'é* nominalization) is quite obviously different, with its predicate being indexed in a comparable manner to the predicate of an independent clause. This section first describes the system of dependency-coding used in the first four types of

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<sup>4</sup> The unique argument of non-agentive intransitive predicates or of nominal predicates is indexed with Set II.

Were they taken into account, the alignment would then be described as active-stative rather than nominative-accusative.

dependent clauses. The following section will then present the five types of dependent clauses separately.

Jensen (1990) reconstructed these four types of dependent clauses of Proto-Tupi-Guarani the way they occur in six of the eight subgroups of the family, and then describes how they evolved in the two other sub-groups. Their indexation system is completely different than that of independent clauses: Set I is not used, Set II is not restricted to accusative and the relative position of A and P on the hierarchies is irrelevant. The three principles underlying this special indexation system are given below.

- i) On transitive verbs, P is indexed with a Set II index (5). On intransitive verbs, S argument is also indexed with a Set II index (6).

(5) *o-úr*            *i-kuáp-a*  
 3.I-come          3.II-meet-GER  
 He came to meet him.

(6) *syé*            *só-reme, ...*  
 1SG.II          go-SUB  
 If I go, ...

In this system, Set II does not encode accusative but absolutive (P and S). The system is said to be *absolutive* in the sense that what is marked on the verbs is P or S, with the same markers, just like in an ergative-absolutive system where only the absolutive would be marked. However, ergative-absolutive systems typically mark the ergative rather than the absolutive.

- ii) In some languages, the index does not occur when the absolutive argument immediately precedes the verb as in (7) with P preceding the transitive verb, or in (8) with S preceding the intransitive verb.

(7) *o-úr            kunumí        kuáp-a*  
 3.I-come        boy                meet-GER  
 He came to meet the boy.

(8) *pajé        só-reme, ...*  
 shaman    go-SUB  
 If the shaman goes, ...

- iii) In the intransitive gerundive construction, and in the subordinate clauses in some languages, an absolutive argument (S or P) coreferential with the subject (S or A) of the main clause is marked with a special set of coreferential indexes (Set III).

(9) *a-có            wi-poracéj-ta*  
 1SG.I-go        1SG.III-dance-GER  
 I went to dance.

Asurini (Jensen 1990: 125)

(10) *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)

(11) *[peje-pycýk-VmV] pe-'ar*  
 2PL.III-catch-SUB        2PL.I-fall

When he caught you, you all fell.

To summarize, the distribution of person indexes in independent clauses relies on an accusative system with a hierarchical indexation on transitive verbs. In dependent clauses (the nominalization in *-ba'é* being excepted), the indexation system is quite different : it is absolutive with some coreferential marking.

My position is that the dependent indexation system can be considered to be characteristic of nominals. Indeed, in Proto-Tupi-Guarani, nouns have their possessor indexed with Set II (12) or Set III if it is coreferential with the subject of the clause (14). This parallels the encoding of the absolutive argument on dependent verbs with Set II or Set III according to coreferentiality with the subject, as in (5) and (9) for example. Moreover, in the genitive construction, the possessor NP immediately precedes the possessee, that does not carry any person index (13), just like a dependent verb immediately preceded by its absolutive argument does not carry any person index as in (7) or (8). The absolutive category of dependent clauses is exactly equivalent to the possessor category of nominal phrases. The dependent clause displays the same structure than a nominal phrase. For these reasons, I consider this major type of dependency-coding as nominalization.

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

(12) *i-čý*        *o-c-epjá**k*

3.II-mother 3.I-3.II-see

He saw his (someone else's) mother.

(13) *kujã*        *čý*

woman        other

woman's mother

- (14) *o-čý*                    *o-c-epják*  
           3.III-mother        3.I-3.II-see  
           He saw his (own) mother.

Dependent clauses also differ from main clauses in word order (the verb is final in the dependent clause), negation and TAM marking. Negation of dependent clauses uses a special negation device different from sentential negation used on independent verbs, constituent negation and prohibitive. This negation marker is found exclusively in dependent clauses (15). Temporal information is provided by nominal morphology rather than TAM predicate markers (16).

Kayabi (Jensen 1998a: 546)

- (15) *mojaǵ-ar-e'em-a*  
           make- NOMN-NEG-a  
           one who doesn't make it

Tupinamba (Jensen 1998a: 544)

- (16) *i-mojáŋ-ár-ám-a*  
           3.II-make-NOMN-ANTICIP-a  
           the one who will make it

To conclude, following Givon's definition of finiteness as a "clausal category defined in terms of a clause's degree of similarity to the prototype transitive main clause" (Cristofaro 2007, out of Givon 1990), I consider the verb of the dependent clause to be *non-finite* in that its indexation, word order, negation and TAM differ from that of main clauses. In my view, PTG dependent clauses are therefore non-finite nominalizations.

### 2.3. The different types of PTG dependent clauses

The five types of dependent clauses reconstructed for PTG are now presented in more detail. The first four follow the indexation system specific to dependent clauses (plus a subordinating suffixes, specific negation and TAM), while the last one uses the same indexation system and negation found in the independent clauses. They differ quite a lot in finiteness.

#### 2.3.1 Temporal/conditional subordination

PTG displays two types of subordinate clause. One is marked with the suffix *\*(C)VmV*, and expresses temporal or conditional relations ((17), see also (6) and (8)), the other one is marked with the suffix *\*-ire ~-(ri)re* and is glossed 'after'.

(17) *i-nupẽ-reme*

3.II-hit-SUB

If (I/we/you/he/they) hit him, ...

#### 2.3.2. Gerundives

The gerundive construction is called *serial verbs* in Jensen's work. Following Rodrigues' terminology (*gerundio* in Rodrigues 1953), I use the term *gerundive* because the verb under study is marked with a suffix (*-a* and its allomorphs), while serial verbs do not normally display any marker of subordination. The PTG gerundive expresses simultaneous action, purpose or sequential action. Its subject is necessarily coreferential with the subject of the main verb (18). Cf. also (7), (9) and (10).

(18) *o-úr*            *i-kuáp-a*

3.I-come            3.II-meet-GER

He came to meet him.

#### 2.3.3. Oblique-topicalized constructions

The oblique-topicalized construction is found 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: it takes a suffix (*-i* or *-n* in examples (19) and (20)) and absolutive indexes. The term *dependent construction* is not really appropriate for this type of construction, because the verb of the construction is the main verb of a non-complex sentence. This can be described as a case of *insubordination* following Evans' terminology (2007:307), i.e. "the conventionalized main clause use of what, on prima facie grounds, appear to be formally subordinate clauses."

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

(19) *kwecé i-ʔár-i*

yesterday 3.II-fall-OBTOP

Yesterday he fell.

Guajajara

(20) *ka'a-pe ure-reraha-n*

jungle-at 1EXCL.II-take-OBTOP

He took us to the jungle.

In some languages of the Tupi-Guarani family, the absolutive indexation is found in this construction only when the subject is a 3<sup>rd</sup> person; in other languages, only when the subject is 1<sup>st</sup> or 3<sup>rd</sup> person.

#### 2.3.4. Nominalizations

There are several types of nominalizations in Proto-Tupi-Guarani, each with different semantics (nominalizations of the agent, of the action, of the patient, of the circumstance...)



and a different suffix. Example (21) illustrates circumstance nominalization marked with the *-cáb* suffix, while example (22) illustrates action nominalization marked with the *-a* suffix.

(21) *i-juká-cáb*

3.II-kill-NOMN

his death place, his death circumstance

Proto-Tupi-Guarani (Jensen 1998a: 540)

(22) *čé*            *kér-a*

1SG.II            sleep-NOMN

my sleep

### 2.3.5. The *-ba'é* dependent clause

One last construction is considered a nominalization by Jensen but does not show the same properties than the other nominalizations. The dependent verb follows the indexation system of main verbs (23). It therefore shows no characteristics of nominals. Its difference with main clauses boils down to its carrying the suffix *-ba'é*. I therefore analyze it as a finite subordinate clause, more specifically a relative clause.

(23) *o-có-ba'é*

3.I-go-NOMN

the one that goes

This construction yet shares with nominalization the combination with two nominal categories: the referential suffix *-a* and suffixes of temporal reference.

Tapirapé (Praça 2007:71)

(24) *ã-ow*            *parãxi-ø*            *a-kāxym-ama'e-kwer-a*

1SG.I-find            pencil-REF            3.I-lose-NOMN-PAST-REF

I found the pencils I had lost.

With the exception of this last construction, all PTG dependent clauses are coded as non-finite nominalizations.

### **3. Evolution of Proto-Tupi-Guarani dependent constructions into Emérillon**

"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). This means that while reconstructions are facilitated, deviations are also more visible. Remember that the previous description of PTG dependent clauses is still presently valid for six of the eight subgroups of the family. However, in Chiriguano, Kaiwa and Mbya Guarani of subgroup 1 and Wayampi and Urubu of subgroup 8, dependent constructions are marked in a different manner.

"In these languages the system which characterizes the main verbs of independent clauses in the Tupí-Guaraní family as a whole has been extended to other syntactic conditions as well." (Jensen 1990 :119).

In dependent clauses, the absolutive system was replaced by the hierarchical indexation system. The coreferential indexation also disappeared and some suffixes were lost.

Emérillon belongs to sub-group 8 of the Tupi-Guarani family, one of the sub-groups where dependent constructions underwent radical changes. For lack of data, Emérillon was not included in Jensen's study but its dependent clauses nevertheless underwent the same kind of shift in indexation system. Emérillon still displays the same sets of person indexes, now prefixes in all cases. 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 patient is never indexed any more (for detailed

presentation of the hierarchical indexation of Emérillon, see Rose 2003a, 2007, 2008 or 2009a). On the contrary, most of the dependent constructions evolved away from the non-finite pattern presented before. Three types of changes occurred: change of indexation system (the topic of Jensen's study), loss of suffix, loss in usage. For each construction, one to three of these changes may have occurred. Moreover, a change can be complete or partial. It is therefore visible that those constructions are derived from the dependency-coding system presented before, since some traces of it are left. In sub-sections 3.1 to 3.3, evidence for the different types of changes will be given. Then the particular evolution of each dependent construction (nominalizations, gerundives, temporal subordinate clauses and the oblique-topicalized construction) will be examined in 3.4, before a final discussion about the order and the direction of changes in 3.5.

### 3.1. Shift of indexation system

This change is the most pervasive through the dependent constructions of Emérillon : it affected the subordinate clauses, the oblique-topicalized construction and the intransitive gerundives (but not the transitive gerundives nor the nominalizations). This was the topic of Jensen's work. When this change occurred, the hierarchical system with a nominative/accusative basis of independent clauses extended to these dependent clauses as well, replacing the absolutive system with some coreferentiality marking. In the examples below, Set I is used to index S in (25) and A in (26), where in Proto-Tupi-Guarani, Set II would respectively index S and P.

(25) *a-wig-a-nam, o-ho-pa.*

1SG.I-arrive-REF-SUB      3.I-go-COMPL

When I arrived, he had gone.

(26) *o-ijnuŋ-ba-nam,*            *o-pukuč̣.*

3.I-put-COMPL-SUB            3.I-stir

When she finishes to put them, she stirred it.

The result of this shift is that the resulting verbal forms are finite and show no resemblance with nominal structures anymore.

### 3.2. Loss of suffix

The suffixes of the oblique-topicalized construction (27) and the gerundive (28)-(29) are not found in Emérillon any more.

(27) *aipo-po*            *a-baʔe-tar*

now-RED            1SG.I-do-FUT

Now I am going to do something.

(28) *logements sociaux-kom*            *a-ijnuŋ-okar*            *i-mōdo*

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

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

(29) *a-ho*            *a-zaug*

1SG.I-go            1SG.I-bathe

I went to bathe.

The suffixes were lost without leaving any traces, so it is obviously hard to prove that these examples derive diachronically from the PTG constructions presented above. However,

although the daughter constructions of PTG gerundive do not carry suffixes anymore, the fact that a final *r* is regularly missing is a residue of one of the PTG gerundive's endings.

Tupinambá (Rodrigues 1953)

(30) *potár* "to want" → *potá* "wanting"

Example (31) illustrates how the verb *ekar* ("search") loses its last consonant in the Eméillon gerundive form. Together with the special verb form without index but with an immediately preceding P, this constitutes a strong indication that this construction originates from the original PTG gerundive construction.

(31) 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 had not been mentioned in Jensen's study, since the languages she studied have all systematically lost their word-final consonants. The Eméillon data is of great interest. By showing that the present-day gerundive construction is a late development of the gerundive as found in most Tupi-Guarani languages, it proves that the dependent-coding system of subgroups 1 and 8 derive from the more widespread system that was used to reconstruct the PTG system. A small detail like the final *r* deletion actually constitutes a solid foundation for the entire reconstruction of PTG dependent indexation system as realized by Jensen, because it justifies the direction of change postulated by the author, from an absolute indexation system to a hierarchical indexation system.

### 3.3. Loss in usage

Nominalisations (32) and gerundives (33) with absolutive indexation are restricted to transitive verbs in present-day Emérillon.

(32) *kob i-baʔe-har.*

COP 3.II-make-NOMN

There is someone to do that.

(33) *o-weraho ʔi-b i-mõbo*

3.I-carry water-POSTP 3.II-throw

She takes it and throws it into the water.

Furthermore, these constructions display a very low frequency. Nominalizations are very rare in spontaneous discourse. There are less than 10 natural examples of nominalizations in my corpus of 32 texts (including example (32)). All others have been elicited. Transitive gerundive forms are also 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 (including example (33)). Furthermore, 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 *ʔu* 'eat' and *maʔẽ* 'see, watch'. In addition, some grammaticalization processes may be at work.

The reduction in usage of nominalizations and gerundives to transitive verbs only, with a low frequency and sometimes quasi-frozen forms identify them as residues of the former dependent-coding system.

### 3.4. Recapitulation of evolution of each dependent construction

Now that the three important changes in dependent-coding have been presented, I will present the historical evolution of the different dependent constructions, from the most conservative to the most innovative. The information given in this section is summarized in Table 1.

	Change of indexation	Loss of suffix	Loss in usage	Further changes
Nominalizations			rare; with transitive verbs only	
Gerundive		yes	rare; with transitive verbs only	
	yes	yes	with intransitive verbs only	extension of SVC pattern to transitive V2
Temporal subordinate	yes			free word order
Oblique-topicalized construction	yes	yes	not a special construction any more	

*Table 1 : Diachronic evolution of PTG dependent constructions into Emérillon*

#### 3.4.1. Nominalizations : loss of usage

Nominalizations were maintained without any formal change, they still display the absolutive indexation system and the dependency-marking suffixes. They just lost the central function that they had in PTG and are moreover limited to transitive verbs.

The examples below show that the system of indexation in dependent clauses was entirely maintained. Set II is used to refer to P (absolutive) in (34). When P is expressed by a full noun immediately preceding the verb (35), no person index is prefixed to the verb, as was the case in PTG. In example (36), a Set III index shows coreferentiality between P of the nominalized clause and S of the main clause.

(34) *a-ɨpuŋ-oka(r)-tar    ʒãdam-am,    paske    dati    zo-maʔẽnan-har    kotĩ.*

1SG.I-put-CAUS-FUT    policeman -TRANSF    because    COP.NEG    INDET.II-watch-NOMN    there

I will have policemen appointed there, because there is nobody to look after people there.

(35) *wĩra ʔa-zozog-a    ate.*

comou-crush-NOMN    COP

It is the instrument that is used to crush *comou*.

(36) *o-mõ-g<sup>w</sup>era-har-a-ne    o-ʔu-o.*

3.III-CAUS-cure-NOMN-REF-CONTRAST    3.I-eat-CONT

He is eating his rescuer.

### 3.4.2. Transitive gerundives : loss of suffixes and loss in usage

The absolutive pattern of the gerundive is maintained only with transitive verbs, in some residual forms of the gerundive. It is presently not marked by any suffix (except the elision of a final *r*, Cf. 3.2.).



However, as in PTG, it either takes a Set II marker for P as in (37), or no index if immediately preceded by a nominal P as in (38).

(37) *siridz o-ikidz o-wi Ø-eraho*

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

He took his mother and carried her.

(38) *e-k<sup>w</sup>a beku-r-eta*

2SG.IMP-go creeper-RELN-cut

Go cut the creeper.

### 3.4.3. The temporal/conditional subordinate clauses : loss of the absolutive pattern

The only subordinate clause that was kept up to Eméillon is the temporal/conditional one, marked with the suffix *-nam*. It replaced the absolutive indexation system with the hierarchical one.

Set I is used to index S in (39) and (40), where in Proto-Tupi-Guarani, Set II would respectively index S and P.

(39) *a-wig-a-nam, o-ho-pa.*

1SG.I-arrive-REF-SUB 3.I-go-COMPL

When I arrived, he had gone.

(40) *o-ijnuj-ba-nam, o-pukuç.*

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

When she finishes to put them, she stirred it.

It can also be noted that in Emérillon, the verb is not necessarily the last constituent of the subordinate clause, as example (41) shows.

(41) *o-ʔur-eʔe i-paʔa-nam, o-ikidʒ zadupa-pope o-poʔā...*

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...

#### 3.4.4. Intransitive gerundives turned into serial verbs : loss of the absolutive pattern and loss of suffixes

The intransitive gerundives gave rise to a newly constituted serial verb construction (Rose 2009b), in a comparable way to what happened in Tibetan (DeLancey 1991).

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

(42) *a-nan a-ze-mim*

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

I run to hide.

The result is a very common structure in Emérillon: serialization. It is made of several verbs without coordination or subordination markers, and without any internal pause, as in (42). TAM and polarity 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 indexed on both verbs, following the indexation system of independent verbs.

- (43) *a-nan-tar*                      *a-ze-mim*  
 1SG.I-run-TAM                      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].

However, just as for the few Emérillon transitive gerundives left, the last /r/ of the final verb of the series is always missing, proving that the source of serialization is the PTG gerundive construction. Example (45) illustrates how the verb *ʔar* ("fall") loses its last consonant in a verb series.

- (45) a-    *aman o-ʔar*  
           rain    3.I-fall  
           It's raining.
- b-    *o-wir*            *o-ʔa*            *wiʔa-wi.*  
           3.I-detach    3.I-fall            wood-from  
           He is falling from the tree.

Among all the cases of Emérillon serialization, many examples like (46) show a final transitive verb. It was asserted above that only intransitive gerundives evolved into serial verbs, while transitive gerundives evolved differently (Cf. 3.4.2). I therefore postulate that first, the serial verb construction was derived from a complex sentence with an intransitive gerundive and second, that this construction was later extended to allow final transitive verbs as well. In this example, it can be noticed that the final *r* of the final verb of the series is not

elided, undoubtedly due to the fact that this construction is not directly derived from the PTG gerundive.

- (46) *o-ho o-iba o-ekar-oŋ.*  
 3.I-go 3.III-pet 3.I-search-PL.S  
 They went to look for their pet.

### 3.4.5. The oblique-topicalized constructions : the loss of a construction

The oblique-topicalized construction has completely disappeared, since it lost both its suffixes and the absolutive indexation. Thus when a predicate follows a fronted adverbial in Emérillon, as in (47) and (48), it is marked like any main verb: it takes no special suffix and uses normal main verb indexation. Since its marking has been "normalized", there is no reason anymore to speak in terms of an *oblique-topicalized construction*.

- (47) *tepisi-pope o-nami*  
 press-POSTP 3.I-squeeze  
 She squeezes it in a press.

- (48) *a-wig-a-nam, o-ho-pa*  
 1SG.I-arrive-REF-SUB 3.I-go-COMPL  
 When I arrived, he had gone.

### 3.5. Order and direction of changes

The fact that those changes affected some types of dependent constructions more deeply than others hints at a chronology of the shift in dependency-marking.

Jensen (1990) gives a tentative order in which the dependent constructions were affected by the shift of indexation in the five languages she described.

oblique-topicalized construction
subordinate verbs
gerundives with intransitive verbs
nominalization with intransitive verbs
gerundives with transitive verbs
nominalization with transitive verbs

*Table 2 : Ordering of changes (adapted from Jensen 1990)*

The Emérillon data corroborate this hypothetical scenario. In 3.4., the dependent constructions were presented from the more conservative to the more innovative, in a mirror image to the order of changes hypothesized by Jensen. The initial and final stages are confirmed by the Emérillon data. It seems reasonable that the oblique-topicalized construction was affected first in that it is the only construction in which the shift in dependency-coding has been total in Emérillon. It seems also quite realistic that the last two constructions to shift are transitive gerundives and transitive nominalizations, since they are the only ones that have maintained the absolutive indexation system up into present-day Emérillon. It is important to repeat here that these constructions are rare, and somewhat frozen. This is a hint that the process is affecting them as well.

A key point made by Jensen is that the shift is more advanced on intransitive verbs than on transitive verbs. This is also confirmed in Emérillon, where the coreferential indexation is almost obsolete (only one example was found in a transitive nominalization, cf. (36)). It is also very patent that intransitive gerundives were transformed into SVCs while their transitive counterparts evolved in a less dramatic way. Worth putting forward is the fact that intransitive verbs were most probably affected first, or in other words that the coreferential pattern started to get lost before the absolutive pattern, probably because the

coreferential index set (Set III) was not used on independent verbs.<sup>5</sup> In present-day Emérillon, out of Set III, only the third person coreferential index is still used. Since coreferentiality marking got out of use on dependent verbs, Set III is now used only as object of postpositions and possessive index on nominals, as in (49).

(49) *o-anō      o-iba-o      ki ?i*

3.I-wait      3.III-pet-CONT then

Then she is waiting for her (own) pet.

In the perspective of diachronic syntax, the greatest change that took place between PTG and Emérillon is the replacement of an absolutive and coreferential indexation system with a hierarchical indexation system (the topic of Jensen's study).<sup>6</sup> Since the changes are not restricted to indexation, it is, in our view, more interesting to speak in terms of strategies of dependency-coding. The original PTG system was strongly based on nominalized dependent clauses, while the Emérillon systems obviously goes for analogy of dependent clauses with independent clauses, that is to say towards finiteness. The general direction of the shift is towards dependent clauses being identical to main clauses in terms of indexation, negation

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<sup>5</sup> Jensen 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, Set II in dependent clauses and Set III in dependent clauses in cases of coreferentiality (Jensen 1990:154).

<sup>6</sup> A stronger hypothesis put forward by Harrison for Guajajara (1986: 427-428) and also taken upon by Jensen (1998a: 564) is that the same change from absolutive-ergative to hierarchical must have taken place beforehand in Proto-Tupi-Guarani independent clauses. This hypothesis was convincingly argued against by Gildea (2002) on the basis of diachronic morphology. This counterargument is also comforted by our analysis of the absolutive system as nominal indexation, which is easily applicable to nominalized dependent predicates but must be argued for on solid grounds for independent predicates.

and TAM, i.e. away from the NP model and nonfiniteness. 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 say that the process presented in this paper is the reverse one that could be called *re-sententialization*.

A second type of change consists in the loss of suffixes, which is logically independent from the change of indexation system. One would actually expect at least one of the dependency-marking device to be maintained. Unexpectedly, both the shift in indexation and the loss of suffixes occurred in the cases of the oblique-topicalized construction and the transitive gerundive. The result is a strong *re-ranking* process, if one may call that way the process opposite from *deranking*, which is the presence of both non-finiteness and an overt morpheme on a verb form (Stassen 1985).

The third type of change, the loss in usage, may well be the result of the change of strategy in dependency-coding. Once the language clearly opts for finiteness, the constructions not yet affected by the shift do not correspond to the new major way of expressing dependency, using finite verbs, and end up 'out of fashion'. This is how they may sound 'oldish' and gradually lose ground. This change of strategy may also have triggered the emergence of new finite subordinate clauses from other sources.

#### **4. The emergence of new subordinate clauses in Emérillon**

While the only subordinators of Proto-Tupi-Guarani were the temporal/conditional subordinators (1.2.1), Emérillon displays three more types of subordinate clauses. These "new subordinate clauses" all participate in the now generalized way of coding arguments via the hierarchical indexation system. The study of these other dependent clauses of Emérillon permits to add a few hypothesis to broaden the scope of Jensen's study on both sides : on changes that occurred even before the PTG stage she reconstructed and on the evolution that

went further than the changes she described. For that, section 4 discusses three more types of subordinate clauses, all in the now generalized hierarchical indexation system.

#### 4.1. The *t-* purpose subordination

Purpose subordinate clauses are the only subordinate clauses of Eméillon to be introduced by a prefix. Their second specificity is to follow the main clause. The purpose clause is finite, with the same indexation system as in main clauses, and the same TAM markers.

(50) *e-k<sup>w</sup>a*      *sisig-a-kom-a-r-ehe*      *t-ere-maʔẽ*.

2SG.IMP-leave    sister-REF-PL-REF-REL-POSTP    PURP-2SG.I-watch

Go watch your sisters.

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

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

She wakes them up well so that they get up.

The other use of the marker *t-* (~ *ta-* ~ *te-*) is to express hortative on a main clause. The hortative is negated with a special prohibitive marker (*mame*) that has never been attested with the purpose subordination.

(52) *wane*    *te-pe-dʒapɨaka-õwã*    *wɨrakara-kotɨ*.

well      PURP-2PL.I-think-a.little      God-POSTP

You all should think a little about God.

A cognate of the *t-* prefix is found in several Tupi-Guarani languages, of different sub-groups. In Kamaiurá (Seki 2000) and Guajá (Magalhães 2007) at least, it has the two functions of hortative and final subordinator. In Tapirapé (Praça 2007) and Urubu-Kaapor (Kakumasu



1986), it is not attested at all. Consequently, it has not been reconstructed for PTG. The origin of this construction is apparently not to be found in the older PTG system of dependency-coding. Since the logical relation between hortative and purpose is quite transparent, the purpose use could easily be derived from the hortative use. The present paper is not concerned with the specific modalities of development of this construction, but just aims at noting that it gives way to one more finite subordinate clause in Emérillon. In the end, this construction also participates to the general tendency of the language towards dependency being encoded just by a marker on a finite clause.

#### 4.2. Extension of the *-ba'é* subordinator

With time, the great variety of PTG nominalizations has been considerably reduced in usage in Emérillon (cf. 3.4.1). The language nowadays favors quasi exclusively the *-ba'é* clause nominalization inherited from PTG, without any important formal change beside the fact that the reflex of this suffix is *-mãʔẽ*. Remember that, while considered a nominalization by Jensen, it was very different from the other types of nominalizations, due to its finiteness (cf. 2.3.5). In Emérillon, a clause marked with *-mãʔẽ* should be analyzed as a finite subordinate clause. First, the nominal coding and the indexation system are that of a finite clause, as illustrated by the use of Set I prefix for S and A in the examples below. Second, the negation marker *d-...-dzi* is the same that the one used in a main clause (57). The subordinator is attached to the final word of the dependent clause, be it the verb or not (56). Finally, the high frequency of this construction also distinguishes it from the rare residues of other types of nominalizations. This can be correlated with its very general subordinating function : it is used to relativize different types of arguments (subject (53), object (54) and object of postposition (55)), and as a complement clause as well (56).

(53) *waɪkuwa za-mãʔẽ-itʃẽ òwã amõ-kom, [o-ʔi-wi-wi o-ʔur-a-mãʔẽ]-kom amõ.*

NEG-COND INDET.I-see-just NEG other-PL 3.III-river-ABL-RED 3.I-come-REF-REL-PL other  
 We would not go and see other people, the others that came from their river.

(54) *aŋ baʔek<sup>w</sup>əɾ [a-mebe ʔu-tar-a-mã ʔɛ].*

DEM story 1SG.I-tell-FUT-REF-REL

This is the story I am going to tell.

(55) *i-puri-we-ʔe baʔe [i-pope pazaru za-ijnuŋ-a-mã ʔɛ].*

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.

(56) *oro-potar [mun am-ewar-a-kom o-tarawadʒ administration-pope-mã ʔɛ].*

1EXCL.I-want people here-NOMN-REF-PL 3.I-work administration-in-COMPL

We would like local people to work in the administration.

(57) *o-nupã-ʔe [d-o-nupã-pa-dʒi-ŋ-mã ʔɛ].*

3.I-hit-INTENS NEG-3.I-hit-COMPL-NEG-PROG-REL

Then they hit again, those (creepers) that they had not hit yet.

Two factors probably contributed to the expansion of this construction. First, the fact that this *clause nominalizer* was not semantically specialized made it possible for it to fulfill a general function. Second, in the historical context of a general shift in dependency coding, its finiteness most likely boosted its frequency, especially as nominalizations were losing ground. Since in PTG, the *-ba'é* nominalization already displayed an indexation system identical to that of main clauses, I put forward the hypothesis that this construction triggered

the general shift in indexation in dependent clauses in sub-groups 1 and 8, and pushing the hypothesis further, it may have constituted the first step of such a shift in the entire Tupi-Guarani family.

#### 4.3. New subordinators out of postpositions

The creation of new subordinators out of postpositions filled the functional gap left by the nominalizations. This final step has not been mentioned by Jensen (1990) for any Tupi-Guarani languages.<sup>7</sup>

Examples (58) and (59) illustrate the polyfunctional use of two Eméillon morphemes, functioning both as postpositions in a) and as subordinators in b).

(58) a- *a-ho-tar* *ĩfĩ* *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 ĩr* *o-tui-r-upi-we,* *wãĩwĩ-kom* *sə* *sə-we* *o-tui-ŋ*.

big tapir 3.I-become-RELN-SUB-too woman-PL big big-too 3.I-become-PL

**As** the tapir was growing, the girls were growing up too.

(59) a- *o-sisig-a-r-ehé* *o-zebarađ*

3.III-sister-REF-RELN-POSTP 3.I-play

He plays **with** his sister.

<sup>7</sup> A parallel process has taken place in other tupi-Guarani languages, at least in Zo'é with the postposition *-ehé* (Cabral 2007: 253-254) and in Guarani with the postpositions *gwi*, *gwivé*, *pevé* (Gregores and 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 Emerillon (Rose 2003b, to appear).

b- *eaɲ o-kakuwa, aman-a-r-aʔir-a-te o-ʔar-a-r-ehē.*

rapidly 3.I-grow rain-REF-RELN-son-REF-FOC 3.I-fall-REF-RELN-SUB

He grows rapidly, **because** it was the son of the rain that was born.

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 turned out to be marked like independent verbs in Eméillon, the same change occurred in nominalized clauses followed by a postposition. The postposition following nominalized clauses (now indexed like main verbs) has been reanalyzed as a subordinator. This process is parallel to the one described by Genetti (1991) for Newari, where case postpositions developed into adverbial subordinators (cf. also Rose 2006 for a typology of syncretic adpositions/subordinators).

The reanalysis of postpositions into subordinators is probably a late consequence of the shift in dependency coding. First, it fills the functional gap left by the loss of productivity of the various nominalizers. Second, it seems to follow the model of the other subordinate clauses (the relative/complement clause and the temporal/conditional subordinate clause). Third, this emergent construction has not been described in other Tupi-Guarani languages, pointing it as a recent Eméillon innovation.

#### 4.4. The suffix *-a* as a dependency-marker

The only unclear point concerning this reanalysis is whether a nominalizer has been deleted in the process, or whether the *-a* morpheme found between a consonant-final dependent clause and the syncretic postposition/subordinator (cf. example (59)b- and (60)) should be

considered as a trace of a former nominalizer. At first view, the *-a* could be analyzed as an old nominalizer (the PTG *-a* action nominalizer for example) that would have lost its nominalizing-marking function when the dependent clause turned finite. To fit our hypothesis of reanalysis of postpositions into subordinators, the *-a* would now simply be a dependency marker.

(60) *o-nan-a-r-ehe-te*      *toti*      *ihu-r-ačir*      *o-reko*.

3.I-run-REF-REL-SUB-FOC    tortoise      deer-REL-daughter    3.I-marry

Because it ran (fast), the tortoise got to marry the daughter of the deer.

An *-a* morpheme is also found on temporal/conditional subordinate clauses (cf. example (39) repeated below as (61)), on relatives and on complement clauses (cf. examples (53)-(55)), where it could also be considered a dependency marker. In these contexts, it did not occur in PTG and it could never have been a nominalizer in any way.

(61) *a-wig-a-nam*,      *o-ho-pa*.

1SG.I-arrive-REF-SUB      3.I-go-COMPL

When I arrived, he had gone.

Beside its use in dependent clauses, *-a* can not simply be described as a nominalizer in synchrony since it is also found on nominal phrases in front of a postposition as in (59)a, but also in front of some clitics and in the genitive construction as in (62). I suggest that in synchrony, *-a* next to a subordinator is a clause suffix that marks dependency in a redundant way.<sup>8</sup>

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<sup>8</sup> Queixalós posits an interesting hypothesis valid for the entire Tupi-Guarani family where this *-a* morpheme has a much larger function than that of a simple nominalizer. Taking as a basis an initial omnipredicative state in the PTG history where any lexeme could be used as a predicate, the function of the *-a* referential suffix would

(62) *apam-a-ba ?ek<sup>w</sup> ər-a-kom aipo za-puru.*

stranger-REF-custom-REF-PL now INDET.I-use

Now we use the customs of the strangers.

The emergence of new types of subordinate clauses in Emérrillon comforts the idea of a general movement away from nominalized clauses towards finite subordinate clauses.

## 5. Conclusion

This paper showed that the Emérrillon data confirm with one more language Jensen's 1990 study on change in indexation within dependent clauses in some Tupi-Guarani languages. It confirms both the shift in indexation system and the gradual progress of the shift in the different constructions, more importantly the fact that it first affected intransitive clauses. A detailed analysis of Emérrillon data adds evidence for the direction of change between the system reconstructed and the supposedly deviating languages (sub-group 1 and 8 of the Tupi-Guarani family).

Jensen's analysis focused on the shift in indexation from ergative-absolutive to nominative-accusative. The present paper takes a broader view of the general shift in dependency-coding, by taking into account not only the indexation system, but also the dependency suffixes, TAM and negation markers. In the end, it shows that the shift in

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have been to derive lexemes into items that can refer, i.e. substantives (Queixalós 2001, 2006). One hypothesis I could suggest for Emérrillon is that, in a mirror image with the fact that historically, all lexemes could be used as predicates, the use of the *-a* morpheme permit both clauses and nominal phrases to be used as substantives (i.e. arguments or objects of postpositions). A dependent verb therefore does not need to be nominalized and its arguments marked in a special way since clause dependency is indirectly marked by the *-a* suffix. This is visible in the emergent syncretism between postpositions and subordinators.

dependency-coding is better presented as a shift from non-finite nominalized clauses to finite subordinate clauses.

This paper also adds diachronic hypotheses about a preliminary step and a follow-up of this shift: it suggests that the *-ba'é* construction may have constituted the first step of such a shift in the entire family and that the new general use of this construction and the emergent subordinate clauses in Emérillon are its natural follow-up. Finally, it puts into light the possibility of a reanalysis of *-a* as a marker of dependency.

### Abbreviations

3.II	Set II third person index
ABL	ablative
ANTICIP	anticipatory
CAUS	causative
COMPL	completive
COND	conditional
CONT	continuous
CONTRAST	contrastive
COP	copula
DEM	demonstrative
EXCL	exclusive
FOC	focus
FUT	future
GER	gerundive
IDEO	ideophone
IMP	imperative

INCL	inclusive
INDET	indeterminate
INTENS	intensive
NEG	negation
NOMN	nominalization
OBTOP	oblique topicalization
PAST	nominal past
PL	plural
POSTP	postposition
PTG	Proto-Tupi-Guarani
PURP	purpose
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, most agent-like argument of transitive verb, most patient-like argument of transitive verb
SG	singular
SUB	subordination



TAM	tense, aspect, mood
TRANSF	transfer

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dans sa fonction déterminative, Keenan 1985), soit d'une relation périphérique (la subordonnée circonstancielle<sup>2</sup>).

Cet article se concentre sur les subordonnées circonstancielle, c'est-à-dire les cas où les adpositions permettent l'intégration d'un élément propositionnel dans une position oblique. Sont donc laissés de côté les nombreux cas où les adpositions permettent d'intégrer une proposition dans la position de complément (Washabaugh 1975 ; Haspelmath, 1989 ; Winford, 1993) ou dans la fonction de relative.

Cette étude se fonde sur une base de données constituée de manière non systématique mais comportant pour autant des langues d'une grande variété génétique, géographique et typologique (Cf. liste en annexe). Nous adressons nos sincères remerciements à toutes les personnes ayant répondu au questionnaire à l'origine de cette base de données : pour ces échanges enrichissants et le partage des données, merci à l'ensemble de l'équipe « *Typologie des relations et des marqueurs de dépendance interpropositionnels*<sup>3</sup> » de la Fédération de Typologie (Responsable : I. Brill) et tout particulièrement D. Creissels et I. Brill, ainsi que les personnes ayant répondu au questionnaire par l'intermédiaire de la liste LingTyp.

Cette recherche a une visée typologique. Elle se donne pour but de présenter différents cas de syncrétisme adposition/subordonnant présents dans les langues du monde, en précisant la nature syntaxique de la proposition subordonnée introduite par le morphème en question (en gras dans les exemples). Nous comparons cette subordonnée d'une part aux groupes nominaux, et de l'autre part aux propositions indépendantes de la même langue. En effet, dans les cas de syncrétisme, on peut remarquer un continuum entre d'un côté des propositions dont la seule différence avec une proposition indépendante est la présence du subordonnant, et de l'autre des groupes adpositionnels prototypiques à caractéristiques nominales. Entre les deux pôles du continuum prennent place divers types de constructions, chaque degré du continuum étant caractérisé par un rapport différent entre caractéristiques verbales et nominales.

Le nombre encore restreint de langues étudiées ne permet pas que ressortent de manière évidente un nombre précis de types discrets et clairement défini représentant des étapes sur ce continuum. En effet, vu la pluralité de facteurs de « nominalité » ou « verbalité », les types envisageables sont nombreux. Pour cependant proposer une première typologie des cas de syncrétisme adpositions/subordonnants, nous organisons notre classification en cinq grands types autour du paramètre d'asymétrie originellement développé par Bisang (2001). L'asymétrie étant vue comme le différentiel dans la présence de catégories obligatoires sur la forme verbale, on distinguera l'asymétrie négative, à savoir l'absence dans la forme subordonnée de catégories obligatoires dans la

<sup>2</sup> Dite « adverbial subordination » dans la tradition anglophone.

<sup>3</sup> <http://www.typologie.cnrs.fr>

principale (temps, marque de déclaration, personne...) de l'asymétrie positive, à comprendre comme l'ajout dans la subordonnée d'informations non nécessaires dans la principale (marque de subordination, cas, personne...).

Au-delà du classement typologique, se pose une question d'analyse du morphème dit syncrétique et de la structure qu'il gouverne : dans chaque cas d'apparent syncrétisme adposition/subordonnant, a-t-on affaire à une adposition et un groupe adpositionnel ou à un subordonnant et une propositions subordonnée? En fin de compte, cette étude réinterroge donc la notion de proposition subordonnée, à travers les notions de finitude, de nominalisation et de polyfonctionnalité.

#### 1. PROPOSITIONS FINIES INTRODUITES PAR UNE ADPOSITION COMPARABLES AUX PROPOSITIONS INDÉPENDANTES : UN CAS DE SYMÉTRIE

Le cas le plus simple parmi les langues où le même morphème introduit aussi bien un groupe nominal qu'une proposition, est représenté par des propositions qui ne sont pas spécialement marquées par rapport aux indépendantes. Pour Bisang, les langues d'Asie de l'Est et du Sud-Est dans lesquelles aucune catégorie grammaticale n'est obligatoirement marquée sont l'exemple même de l'absence de différence entre la capacité morphologique des propositions principales et celle des subordonnées : on ne peut observer de différence dans la présence de catégories obligatoires sur les formes verbales. C'est le cas en cantonais<sup>4</sup>, avec par exemple les syncrétismes postposition/subordonnant de *zi1cin4* « avant », et préposition/subordonnant de *jan1wai6* «à cause de, parce que ».

*cantonais* (Matthews et Yip, 1994, p.295-299)

(5) (hai2)	san1	lin6	<b>zi1cin4</b>	<u>postposition</u>
	at	new	year	<b>before</b>
	before New Year			
(6) (hai2)	ngo5dei6	zau2	<b>zi1cin4</b>	<u>subordonnant</u>
	at	we	leave	<b>before</b>
	before we leave			
(7) <b>jan1wai6</b>	si4gaan1	gwaan1	hai6	<u>préposition</u>
	<b>because</b>	time	relationship	
	due to time considerations			
(8) <b>jan1wai6</b>	si4gaan1	m4	gau3	<u>subordonnant</u>
	<b>because</b>	time	not	enough
	because time is not sufficient			

Les propositions en (6) et (8) ne sont pas distinctes d'autres types de subordonnées, comme les conditionnelles, ni même des principales.

<sup>4</sup> Les exemples sont transcrits dans le système de romanisation JyutPing.

On trouve également ce type de subordonnées (des propositions finies, avec l'ordre des mots habituel, introduites par un morphème fonctionnant par ailleurs comme adposition) dans des langues de types morphologiques très divers : anglais, créole antillais, fon, newari, laz... Cette situation n'est donc pas nécessairement liée à une morphologie « pauvre ».

*créole antillais* (Hazaël-Massieux, 2004)

- (9) **dépi** bonmatin-la-sa préposition  
 depuis ce.matin
- (10) i ka palé-moin **dépi** moin ka palé-li. subordonnant  
 Il me parle **depuis** que je lui parle.

*fon* (Lambert, communication personnelle)

- (11) é yĩ **káká** Lyónù. préposition  
 3SG.S aller **jusqu'à** Lyon  
 Il est allé jusqu'à Lyon.
- (12) ví ó dũ nú **káká** é jè àzòn. subordonnant  
 enfant DEF manger chose **jusqu'à.ce.que** 3SG.S tomber maladie  
 L'enfant a mangé jusqu'à ce qu'il tombe malade.

Dans tous ces cas de syncrétisme où l'élément considéré peut introduire soit un groupe nominal, soit une proposition de forme comparable à une proposition indépendante, nous considérerons que nous avons affaire à un cas de polyfonctionnalité du marqueur introducteur.

## 2. PROPOSITIONS FINIES AVEC UNE MARQUE DE DÉPENDANCE INTRODUITES PAR UNE ADPOSITION: DES CAS D'ASYMÉTRIE POSITIVE

Dans certaines langues de l'échantillon où le verbe de la subordonnée est fini, la présence de l'adposition ne suffit pas à marquer la proposition qu'il introduit comme dépendante. La dépendance est marquée par un morphème supplémentaire, soit situé à la marge de la proposition, soit sur le verbe même de la proposition dépendante.

### 2.1. Marque de dépendance à la marge de la proposition

Le français possède de nombreuses subordonnées circonstancielles introduites par des morphèmes fonctionnant par ailleurs comme prépositions (*pour, pendant, depuis, jusqu'à, avant, après, dès, malgré...*) suivis du morphème *que*.

- (13) **Pendant que** la viande cuit, coupez les champignons en rondelles. subordonnant

Plutôt que de parler en termes de « locution conjonctive », considérons que nous avons affaire ici fondamentalement (ou historiquement) à une préposition, ici *pendant*, dont la fonction originelle est d'introduire des éléments nominaux,



suivie d'un *que* complémenteur, c'est-à-dire un morphème rendant possible l'insertion d'une proposition dans une position nominale.

Un cas équivalent se rencontre en nêlêmwa, avec la présence d'une conjonction *me* dans certaines subordonnées à verbe fini, par exemple avec *habuk* « avant ».

*nêlêmwa* (Bril, 2002)

- (14) hla u taa the maaxi **habuk me** hla ya mwa.  
 3PL ACC STAT couper paille **avant** DÉPEND 3PL couvrir maison  
 Ils ont d'abord coupé la paille avant qu'ils ne couvrent la maison. subordonnant

## 2.2. Marque de dépendance sur le verbe

Le français illustre aussi le cas où la marque de dépendance est présente sur le verbe, sans pour autant en faire une forme non finie. En effet, le subjonctif est essentiellement utilisé dans des propositions dépendantes.

- (15) Je lui ai envoyé de l'argent **pour** qu'il puisse acheter son billet. subordonnant

Cependant, il ne présente pas une combinatoire morphologique foncièrement différente du verbe fini de l'indépendante : indice de personne, possibilité de prendre des arguments et des modifieurs, négation, voix, système de temps certes plus réduit et non autonome vis-à-vis de la principale.

On trouve un système comparable dans les subordonnées du grec moderne introduite par des prépositions comme *για* « pour », *μέχρι* « jusqu'à » et *πριν* « avant » (16) (E. Valma, communication personnelle). Ces prépositions, quand elles introduisent une proposition, sont suivies de la particule *va*, puis d'une forme modale du verbe (17). Cette forme du verbe est pourvue d'un indice de personne, peut être niée, mais est plus contrainte que le verbe d'une proposition indépendante en termes de combinaison des thèmes et des conjugaisons, donc en ce qui concerne l'expression du temps et de l'aspect. On dira alors qu'on a affaire à une forme dépendante du verbe, mais une forme finie.

*grec moderne* (Valma, communication personnelle)

- (16) **Πριν** το φαγητό, préposition<sup>5</sup>  
**avant** ART.NEUTR.SG.ACC repas.SG.ACC  
 πλένουμε τα χέρια.  
 laver.1PL.PRÉS ART.NEUTR.PL.ACC mains.NEUTR.PL.ACC  
 Avant le repas, on se lave les mains.  
 (17) **Πριν** να φάμε, subordonnant  
**avant** que manger.1PL.MOD.ACCOMPL  
 πλένουμε τα χέρια.

<sup>5</sup> Selon les ouvrages de référence sur le grec moderne, « Πριν » est considéré comme une préposition, un adverbe, ou les deux.

laver.1PL.PRÉS ART.NEUTR.PL.ACC mains.NEUTR.PL.ACC  
 Avant de manger, on se lave les mains.

### 3. NOMINALISATIONS INTRODUITES PAR UNE ADPOSITION: DES CAS D'ASYMÉTRIE POSITIVE

Une autre stratégie consiste à marquer de manière nette (morphosyntaxique) la faculté d'une proposition à remplir des positions typiquement nominales, c'est-à-dire celle d'argument du prédicat ou celle d'oblique, notamment d'objet d'adposition pour la question qui nous intéresse ici. La proposition dite « nominalisée » a alors à la fois des caractéristiques hybrides des verbes et des noms. Plusieurs langues sont concernées dans notre échantillon, telles le latin, le yagua, le tariana, le sikuni, le lezgi, le turc. Nous commencerons par illustrer la nominalisation avec l'exemple du lezgi, où la co-existence de caractéristiques nominales et verbales semble claire. A travers d'autres exemples, nous montrerons les diverses caractéristiques nominales que l'on peut trouver dans ces nominalisations comme complément d'adpositions.

En lezgi (Haspelmath, 1993), comme dans de nombreuses autres langues caucasiennes, la subordination circonstancielle utilise différents moyens, dont les principaux sont l'usage de converbes et celui de postpositions gouvernant des propositions de type participe substantivisé ou Masdar (nominalisation d'action). Ainsi, en (18) la postposition *patal* « pour » s'ajoute à un syntagme nominal et en (19), à une nominalisation (Masdar).

*lezgi* (Haspelmath, 1993, ex. 539, 1080)

- (18) Xatimat k'wal **patal** q<sup>h</sup>san dišehli tir. préposition  
 Xatimat house **for** good woman COP:PST  
 Xatimat was a good woman for the house.
- (19) Ada-z Ali amuq'-un **patal** wuč iji-da-t'a č-i-zwa-č-ir.subordonnant  
 he-DAT [[Ali stay-MSD **for**] what do-FUT-CND] know-IMPF-NEG-PST  
 He did'nt know what to do in order for Ali to stay.

Le Masdar est une nominalisation d'action qui a une syntaxe « externe » nominale, par sa distribution et sa compatibilité avec les marques casuelles mais une syntaxe « interne » verbale, le verbe recevant des adverbes et des arguments comme dans une proposition finie. Dans ce cas-là, on a alors affaire à des formes verbales dépendantes comparables formellement aux formes verbales indépendantes : elles ont la même combinatoire morphologique et régissent leurs arguments de manière similaire.

Nous présentons maintenant diverses caractéristiques nominales que l'on peut trouver dans ces nominalisations comme compléments d'adpositions.

#### 3.1. Morphologie casuelle sur la nominalisation

Les exemples latins suivants montrent l'utilisation des cas pour l'intégration des gérondifs comme compléments de postposition.

- (20) legit **ad** disc-énd-um. subordonnant  
 il.lit **pour** apprendre-GER-ACC  
 Il lit pour apprendre.
- (21) **ex** leg-énd-o voluptát-em capit. subordonnant  
**de** lire-GER-ABL plaisir-ACC il.tire/prend  
 Il prend plaisir à lire. (Litt : Il tire son plaisir du fait de lire.)

### 3.2. Marquage du groupe nominal « sujet » et indices de personne

Dans de nombreux cas, l'alignement des noms déverbaux sur la morphologie nominale leur fait perdre les indices de personnes verbaux, mais ils peuvent parfois prendre des indices personnels tirés de la morphologie nominale (possessifs), et/ou voir leur « sujet » marqué au génitif, comme un complément du nom. Ainsi, les gérondifs anglais ont, dans une syntaxe plutôt classique, leur agent au génitif :

- (22) I disapprove **of my daughter's** smoking. subordonnant  
 (23) I am tired **of his** watching golf on TV. subordonnant

L'exemple du turc est plus complexe. En turc, les propositions circonstancielles sont exprimées à l'aide de nombreux types de noms déverbatifs. Lorsque la proposition nominalisée est intégrée dans la phrase par l'intermédiaire d'une postposition, le sujet est alors toujours au cas absolu (non marqué). Dans certaines combinaisons de noms verbaux suivis de postpositions, la personne est indiquée par un suffixe de personne nominal sur le nom verbal (25).

*turc* (Bazin, 1987, p.142)

- (24) ben git-tik-ten **sonra**, kapı-yı kapat-acak-sınız.  
 PRO.1SG partir-NOMN-ABL **après** porte-ACC fermer-INT-S2PL  
 Après que je serai parti, vous fermerez la porte. subordonnant
- (25) Mehmet gel-diğ-i **için**, gid-ip o-nu gör-dü-m.  
 Mehmet venir-NOMN-3SG **pour** voir-GER PRO.3SG-ACC aller-PARF-1S.SG  
 Puisque Mehmet est venu, je suis allé le voir. subordonnant

Autour de ce cas précis, une généralisation peut être introduite sur l'usage de ce type de morphologie nominale : « In languages where the head noun in possessive noun phrases agrees with the possessor noun, non-finite verb forms may take the nominal agreement markers. » (Koptjevskaja-Tamm, 1999, p. 148).

### 3.3. Marque de genre/classe

En sikuaní (Queixalós, 2000), deux types de nominalisations peuvent former des subordonnées circonstancielles avec des suffixes nominaux ou des postpositions : la nominalisation proprement dite (26) et la semi-nominalisation

(27). On les distingue selon leur caractère plus ou moins nominal, notamment la présence ou non d'un suffixe de genre/classe.

*sikuani* (Queixalós, 2000, p. 299)

- |      |   |                     |
|------|---|---------------------|
| (26) | ta-ka-konitsi- <u>nü</u> - <b>xæ</b><br><i>dépendance I-actant II2-fouetter-masculin-causalité</i><br>à cause de moi en tant que fouetteur de toi | <u>subordonnant</u> |
| (27) | ta-ja-konitsi- <b>xæ</b><br><i>dépendance I-actant II2-fouetter-causalité</i><br>parce que je te fouette (litt. parce qu'il y a moi-te-fouettant) | <u>subordonnant</u> |

Les quelques types de nominalisations illustrés ci-dessus dans quelques langues montrent une grande diversité sur le plan de la nature et du nombre de leurs caractéristiques nominales. Rappelons que dans une vision non discrète des parties du discours (telle que celle développée par Sasse, 2001), verbes nominalisés, infinitifs, gérondifs et participes sont à placer sur un continuum entre noms et verbes. Une autre approche consiste à considérer que l'on a affaire à des catégories mixtes héritant à la fois de traits nominaux et de traits verbaux (Cf. notamment Malouf 2000).

Dans ces cas de nominalisations introduites par des adpositions, il n'apparaît pas complètement nécessaire d'analyser le morphème introducteur comme un subordonnant. En effet, la proposition qu'il introduit étant marquée comme l'équivalent d'un groupe nominal, la distribution et la fonction de ce morphème restent bien celles d'adposition, qui peut régir entre autres groupes nominaux, une proposition nominalisée.

#### 4. AUTRES CAS DE PROPOSITIONS NON FINIES INTRODUITES PAR UNE ADPOSITION: DES CAS D'ASYMÉTRIE NÉGATIVE

À côté de ces divers types de nominalisations, la dépendance est souvent marquée par une forme particulière du verbe caractérisée par une morphologie nettement déficiente, c'est-à-dire plus réduite que celle des formes verbales indépendantes : c'est ce qu'on appelle une forme non finie du verbe. Givon (1990 : p. 852-891) liste les points à observer pour déterminer le degré de finitude : TAM, accord pronominal, affixes nominalisants, cas du sujet et de l'objet, articles et déterminants. Très souvent, la morphologie déficiente des formes verbales non finies est corrélée au fait que ces formes ne peuvent normalement pas être le prédicat de propositions indépendantes : on dit alors qu'on a affaire à une proposition dépendante non finie. Ainsi, pour Bisang (2001), si la finitude est une caractéristique des propositions, elle participe aussi à la grammaire de la connectivité inter-propositionnelle. Ces formes sont classées dans les cas d'asymétrie négative par Bisang, de par l'omission dans la subordonnée de catégories qui sont obligatoires dans la principale, et cela même si une marque de subordination étiquette explicitement ces formes comme dépendantes (Bisang, p. 1405).

Les formes non finies du verbe traitées dans cette partie sont moins nettement « nominales » que celles de la section précédente, et nous nous attacherons surtout à montrer la variation possible dans la présence ou l'absence des catégories verbales.

#### 4.1. Marquage du temps et de l'aspect

Plusieurs langues de notre étude (comme le hup ou le rama) montrent que la seule caractéristique qui sépare les subordonnées introduites par des adpositions des propositions principales est l'absence de marque de temps. Ainsi, en rama, le verbe de la principale est obligatoirement marqué pour le temps, alors qu'aucune marque de temps ne peut apparaître dans une subordonnée introduite par une postposition<sup>6</sup>.

*rama* (Craig, ex. 3 p. 459 et 19 p. 469)

- (28) namangku kruubu tabi-i amaing.  
maintenant tigre sortir-TNS encore  
Maintenant, le tigre sort de nouveau.
- (29) kruubu tamaaski ui tabi-i kumaa i-sung-bang.  
tigre matin chaque venir-TNS femme3-voir-SUB  
Le tigre vient tous les matins pour voir la femme.

En maa (Payne, 2004), les subordonnées introduites par la préposition *tè* (31) sont formellement identiques aux constructions en chaînes (30), identifiées par le préfixe *n(H)*<sup>7</sup>. Ce qui rend ces propositions non finies, quoique de manière peu saillante par rapport à d'autres types de propositions, c'est l'absence d'indépendance dans le marquage de l'aspect.

*maa* (Payne, 2004, ex. 22 et 29)

- (30) **n-ε-í**m εnk-áí **n-é-dù**Ñ e-saéí  
CN-3-pass FSG-another.ACC CN-3-cut FSG-bead.AC  
**n-é-íta-dó-í**kí e-múrt  
CN-3-CAUSE-drop-DAT FSG-neck.ACC  
he passed another one, he cut a beads-necklace, and he put it on his neck...
- (31) **Té ní-mí-kí-ndí**m a-íshóó élê kítéŋ obô,... subordonnant  
OBL CN-NEG-2>1-able INF.SG-give this cow.ACC one ...  
If you can not give me this bullock, ...

#### 4.2. Marquage des personnes et présence d'un groupe nominal sujet

Dans de nombreuses langues, les formes non finies sont caractérisées par l'absence de variation de personne sur le verbe. A cette absence de variation de

<sup>6</sup> Alors qu'avec la seule conjonction de subordination sans relation avec une postposition (*kaing*, parce que), le verbe porte toute sa flexion (Craig, note 10 p. 489).

<sup>7</sup> H représente un ton haut.

personne, s'ajoute souvent un traitement particulier du sujet. Ainsi les formes verbales non finies sont souvent caractérisées par l'absence d'un argument sujet explicite dans les langues de l'échantillon (fon, français, anglais, ...). Le sujet implicite est contrôlé par un argument de la principale.

*fon* (Lambert, communication personnelle)

- (32) víó ðù nú káká jè àzòn. subordonnant  
 enfant DEF manger chose jusqu'à tomber maladie  
 L'enfant a mangé jusqu'à tomber malade.

(33) Les salariés ont voté **pour** élire leurs délégués. subordonnant

(34) He lied **to** protect his father. subordonnant

(35) **After** eating dinner, he went to bed. subordonnant

Le portugais connaît une forme d'infinitif fléchi. Malgré ses caractéristiques nominales, l'infinitif portugais peut admettre un sujet présent comme groupe nominal et une marque d'accord. Voici un exemple d'un infinitif fléchi après la préposition *sem* :

*portugais, Vincent 1999, ex. 9d p. 355*

- (36) A Maria entrou em casa **sem** eles ouvir-em.  
 ART Marie entrer-PASSE dans maison sans ils entendre-S3PL  
 Marie est entrée dans la maison sans qu'ils l'entendent. subordonnant

##### 5. PROPOSITIONS AVEC TRANSLATIF : UN CAS INCLASSABLE ?

Dans certaines langues, une proposition a besoin d'une marque spécifique pour pouvoir être introduite par une adposition, mais cette marque n'est pas un simple « nominalisateur », car elle est aussi nécessaire avec les éléments nominaux, notamment pour constituer des objets d'adpositions. Suivant la terminologie de Lemaréchal (1994), on parlera de « translatif substantivant ». C'est-à-dire qu'un syntagme qui n'est pas a priori un « substantif » (c'est-à-dire ni un nom propre, ni un pronom, ni un démonstratif) doit être « translaté » pour servir d'actant. Les propositions et la plupart des syntagmes nominaux sont alors traités de manière similaire pour servir d'objets d'adpositions. C'est ainsi le cas en tahitien (Vernaudon et Rigo, 2004), où pour construire une subordonnée complétive oblique, il faut insérer l'article *te* entre d'une part la préposition *i* et d'autre part un groupe nominal ou une proposition, qui ne contient alors ni sujet explicite, ni marque de TAM.

*tahitien* (Vernaudon, communication personnelle)

- (37) Ua fiu roa 'ōna **i** te i'a. préposition  
 ACC lassé très 3SG **PREP** ART poisson.  
 Il en a vraiment assez du poisson.
- (38) Ua fiu roa 'ōna **i** te 'amu i te i'a. subordonnant  
 ACC lassé très 3 SG **PREP** ART manger PREP ART poisson.  
 Il en a vraiment assez de manger du poisson.

Un cas similaire est observé en émérillon, où l'on observe un morphème *-a* cliticisé à la proposition et suivi du subordonnant, clitique que l'on retrouve par ailleurs également sur un groupe nominal introduit par la postposition correspondante.

*émérillon* (Rose, 2003, ex. 1351 p. 530 et 1352 p. 531)

- |      |   |                                       |                     |
|------|---|---------------------------------------|---------------------|
| (39) | aman-a-l-aʔil-a-te                                      | o-ʔal-a-l- <b>ehe</b> ,...            | <u>subordonnant</u> |
|      | pluie-a-RELN-fils-a-FOC                                 | 3.I-tomber-a- RELN - <b>parce.que</b> |                     |
|      | parce que c'était le fils de la pluie qui était né, ... |                                       |                     |
| (40) | o-sisig-a-l- <b>ehe</b>                                 | o-zebaladʒ.                           | <u>postposition</u> |
|      | 3.COREF-soeur-a- RELN - <b>avec</b>                     | 3.I-jouer                             |                     |
|      | Il joue avec sa sœur.                                   |                                       |                     |

Ce *-a* aurait pu jouer à un état initial « omniprédicatif » de la langue (et même dans l'ensemble des langues de la famille tupi-guarani) un rôle de translatif, permettant à tous les lexèmes pouvant prédiquer de référer, et donc sur le plan syntaxique d'être utilisés comme substantif (Queixalós, 2001).

Dans ce cas où c'est un morphème translatif qui permet à la fois aux groupes nominaux et aux propositions de prendre la fonction de complément d'une adposition, il est difficile de trancher pour une analyse comme symétrie marquée (les dépendantes diffèrent des principales par la présence du morphème translatif), ou comme asymétrie (ce morphème translatif est de toute manière nécessaire aussi avec les groupes nominaux, et participe autant à la construction du groupe prépositionnel que de la dépendance interpropositionnelle). L'adposition peut alors être vue soit comme polyfonctionnelle, la médiation opérée par le « translatif » lui donnant la possibilité d'introduire aussi bien des propositions que des éléments nominaux, soit comme ayant une fonction unique d'adposition, le « translatif » faisant des propositions comme des groupes nominaux des « substantifs ».

#### CONCLUSION

Nous avons observé une grande diversité des subordonnées introduites par des adpositions, aussi bien sur le plan interlinguistique que intralinguistique, et ce sur un continuum entre des formes plus nominales et d'autres plus verbales.

Dans certaines langues, l'égalité de distribution des propositions finies et des syntagmes nominaux permet de poser une symétrie entre propositions subordonnées et indépendantes, alors que dans de nombreuses autres langues, la proposition doit être marquée comme dépendante pour former une subordonnée : on a alors une asymétrie positive ou négative. Reste à renforcer cette typologie en la mettant à l'épreuve d'une plus grande variété de langues.

Que doit-on alors en conclure sur le syncrétisme adposition/subordonnant ? Distinguons trois cas. Si un groupe nominal et une

proposition subordonnée tous deux introduits par le même morphème sont clairement différenciables, ce morphème sera alors caractérisé comme polyfonctionnel, la polyfonctionnalité étant connue comme une caractéristique relativement fréquente des subordonnants circonstanciels (les conjonctions adverbiales dans Kortmann, 2001). Si en revanche les deux structures sont rendues comparables dans cette position (par exemple par un net phénomène de nominalisation, ou par la médiation d'un complémenteur), ce morphème pourra être décrit comme ayant une fonction unique d'adposition. Enfin, dans les cas où la proposition introduite par le morphème syncrétique est marquée comme dépendante (par une forme dépendante subjonctive ou non finie par exemple), tout un panel de cas intermédiaires entre la nominalisation (fonction unique d'adposition) et la subordonnée finie (polyfonctionnalité) est envisageable, et l'analyse est donc à circonstancier.

Au-delà de ces trois cas, il est possible qu'on ait parfois affaire à un cas de réanalyse de l'adposition et de son groupe « nominalisé » en un subordonnant introduisant une proposition subordonnée. C'est finalement ce dernier cas qui apparaît comme particulièrement intéressant: en effet, les propositions finies sont les moins attendues dans cette position de compléments d'adposition. Quelques exemples de réanalyse de formes non finies en formes finies (newari, Genetti 1991 ; laz, Harris & Campbell 1995, émérillon, Rose 2003) suggèrent tout l'intérêt que pourrait avoir l'étude d'un tel cas, montrant le passage entre deux des types de subordonnées introduites par une adposition proposés dans cette typologie.

## ANNEXE

langue	famille	source bibliographique
äiwoo	papou ?	A. Naess, com. pers.
anglais	germanique, indo-européen	
arménien	arménien, indo-européen	A. Donabédian, com.pers ; Donabédian 2005
bedja	couchitique	M. Vanhove, com.pers.
Caribbean English Creoles	créoles de base anglaise	Winford 1993
chadic	chadic, afro-asiatique	Frajzyngier 1996
chinois cantonais	sino-tibétain	S. Matthews, com.pers.
créole antillais	créoles de base française	M-C Hazaël-Massieux, com.pers. ; Hazaël-Massieux 2004
dialectes bulgares et macédoniens de Grèce	slave, indo-européen	E. Adamou, com.pers.



fon	kwa, niger-congo	R. Lambert, com.pers. ; Lefebvre & Brousseau 2002
français	roman, indo-européen	
godoberi	nord-caucase	Kibrik 1996
grec moderne	indo-européen	E. Valma, com.pers.
hup	maku	P. Epps, com. pers.
japonais	japonais	Martin 1975
kiranti	tibéto-birman	Bickel 1999
langues australiennes		Austin 1981 Dixon 2002
latin	indo-européen	
laz	kartvelien	Harris & Campbell 1995
lezgi	nord-caucase	Haspelmath 1993
maa	nilo-saharien	D. Payne, com. pers. ; Payne 2004 ; Payne & Ole-Koikash 2005
mwotlap	océanien, austronésien	A. François, com.pers.; François 1991
nêlêmwa	océanien, austronésien	I. Bril com. pers. ; Bril 2000 et 2002, com. pers.
newari	bodique, tibéto-birman	Genetti, 1991
portugais	roman, indo-européen	Vincent 1999
rama	chibcha	Craig 1991
sikuani	guahibo	F. Queixalós, com. pers.; Queixalós 2000
tahitien	océanien, austronésien	J. Vernaudon com. pers. ; Vernaudon et Rigo 2004
tariana	arawak	A. Aikhenvald, com. pers ; Aikhenvald 2003
tswana	niger-congo	Creissels 2005
turc	turc, altaïque	Akinci, com. pers. ; Bazin 1987
yagua	peba-yagua	Payne & Payne 1990



## The polyfunctionality and development of the Trinitario general subordinator *te*

Françoise Rose<sup>1</sup>

Dynamique Du Langage (CNRS/Université de Lyon)

### 1- Introduction

Trinitario dialect of Mojeño (Arawak, Bolivia)

Main device to encode subordination : general subordinator *te* (Section 2)

Polyfunctionality as an agreeing preposition (Section 3)

→ A series of hypotheses (Section 4-6): a possible chain of evolution from a noun to a subordinator, via a preposition (summarized in Section 7).

### 2- Types of subordination encoding

- Subordinator *te* very frequent for complement clauses and different semantic types of adverbial subordination.

(1) *ene nnaekchi'woo'i te to niprujrikpo*  
*ene n-naekch-'o-wo-ri'i ta-e to n-ipruj-ri-ko-po*  
 there 1SG-start-APPL-MID-ri'i 3NH-PREP ART.NH 1SG-cure-PLURAC-TH-PERF  
 There I started **to** cure (people).

(2) *te pitekpapo piimuigia*  
*te py-itekpo-a-po py-iimui-ko-a*  
 SUB 2SG-arrive-IRR-PERF 2SG-dance-IRR-PERF  
**When** you arrive, you will have to dance.

(3) *te to pauro'o to petavigianu*  
*ta-e to pi-a-woo'o to pi-etavik-a-nu*  
 3NH-PREP ART.NH 2SG-IRR-want ART.NH 2SG-pass-IRR-1SG

*juiti piimuikyore*  
*juiti pi-iimuik-yore*  
 now 2SG-dance-FUT

**If** you want to pass me, you have to dance now.

(4) *tapuchpuiji te to mrakapo tek'oo'i to 'iyo.*  
*ta-puch-po-iji ta-e to mraka-po ty-ek'o-ri'i to 'iyo*  
 3NH-get.close-PERF-RPT 3NH-PREP ART.NH strong-PERF 3-be.hungry-ri'i ART.NH  
monkey

He got closer, **because** the monkey was hungry.

(5) *titekpompo te to nakasaesrare.*  
*ty-itekpo-ono-po ta-e to na-kasae-ko-irare*  
 3-arrive-PL-PERF 3NH-PREP ART.NH 3PL-hunt-TH-NOMN.HAB.OBL  
 They arrived **where** they always hunt.

<sup>1</sup> Thanks to Denis Creissels for his suggestions and to Antoine Guillaume for his careful reading. All remaining errors are mine.

- (6) *te ñipuisrarinejicheji*  
*te ñi-pui-ko-ira-rine-jicha-iji*  
 SUB 3M-walk-TH-NOMN.ACT-just-a.lot-RPT

*eñi tyono te to ewiregne*  
*eñi ty-yono ta-e to ewire-giene*  
 PRO.3M 3-go 3NH-PREP ART.NH far.away-INTENS  
 Walking so much (**because** he walked so much), he went very far away.

- Other subordinators : borrowed items (*puejchu* 'purposive', from Spanish *pues*) or grammaticalized items (*tajicho* 'it makes' for 'because').
- Subordinate clauses without any specific dependency marking.

### 3- The specificities of the general subordinator *te*

- One of the rare monosyllabic free words in the language; no specific meaning.
- Distribution : + finite verb (2),  
 + ART + finite verb preceded by an article (1), (3) and (4),  
 + ART + nominalization (5)  
 + nominalization (6).
- Polyfunctional word : also a preposition (prepositional root *e* with non-human agreement prefix *ta-*).<sup>2</sup> General semantics.

- (7) *ema tnarakoo'i te to mapeno.*  
*ema ty-nára-ko-ri'i ta-e to ma-peti*  
 PRO.M 3-rest-TH-ri'i 3NH-PREP ART.NH 3M-house  
 He was resting **in** his house.

- (8) *asike viuchkopo te to 'lesia,*  
*asike vi-uch-ko-po ta-e to 'lesia*  
 CONJ 1PL-go.out-ACT-PERF 3NH-PREP ART.NH church

*viutekpo te to vye'e kavildo.*  
*vi-utek-po ta-e to vi-ye'e' kavildo*  
 1PL-come-PERF 3NH-PREP ART.NH 1PL-POSS town.council  
 So we got out **from** the church and went **to** our town council.

- (9) *juiti vyonñore vechjirikwoyre nae pnokro*  
*juiti vi-yon-yore vi-echjirikwo-yore na-e pnokro*  
 today 1PL-go-FUT 1PL-talk-FUT 3PL-PREP DEM.PL.IRR  
 Today we are going to talk **with** these (the rainbows).

- (10) *vyujpankouyore se psuka veno 'seno.*  
*vi-yujpan-ko-wo-yore s-e psuka veno 'seno*  
 1PL-ask.a.favor-TH-MID-FUT 3F-PREP DEM Lady woman  
 We are going to ask a favor **to** this Lady.

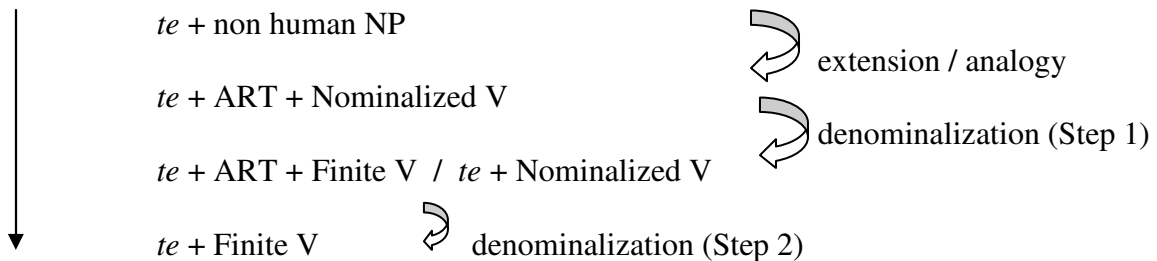
→ continuum between subordinator and preposition.

<sup>2</sup> Languages like Hungarian and Finnish also display inflected adpositions.

**4- Hypothesis 1 : from preposition to subordinator**

HYP 1 : The use of *te* as a subordinator would be an extension of its use as a preposition with a general meaning.

prototypical PREP



prototypical SUB

Figure 1. Schema of possible development from preposition to subordinator

Cf. Newari (Genetti 1991) and Emerillon (Rose 2006, in preparation).

- (11) *ene nkochanee'i te to yoti* PREP+ART+N  
*ene n-ko-'chane-ri'i ta-e to yoti*  
 CONJ 1SG-POSS-person-ri'i 3NH-PREP ART.NH night  
 And they accompanied me **in** the night.
- (12) *eto nim'ogne te to nitorisra* PREP+ART+NOMN  
*eto n-im'-o-giene ta-e to n- itori-ko-ira*  
 PRO.NH 1SG-see-NOMN 3NH-PREP ART.NH 1SG-live-ACT-NOMN
- te to njuukopo.* PREP+ART+V  
*ta-e to n-juu-ko-po*  
 3NH-PREP ART.NH 1SG-grow-ACT-PERF  
 This is what I saw **in** my life (lit.living), **when** I grew up.
- (13) *juiti nechjis'oyre eto to 'chojrikowri'ini*  
*juiti n-echji-ko-'o-yore eto to 'chojrikowo-ri'i-ini*  
 today 1SG-speak-ACT-APPL-FUT PRO.NH ART.NH story-ri'i-PAST
- te to njuusira* PREP+ART+NOMN  
*ta-e to n-juu-ko-ira*  
 3NH-PREP ART.NH 1SG-live-ACT-NOMN 3NH-PREP ART.NH 1SG-grow-ACT-NOMN
- te njuukopo te nutekpo te pjoka* SL. SUB+V  
*te n-juu-ko-po te n- ute-ko -po ta-e pjoka* SL  
 SUB 1SG-grow-ACT-PERF SUB 1SG-come-ACT-PERF 3NH-PREP DEM.NH.PROX SL  
 Now I will tell stories (words) **of** my life, **of** my growing, **when** I grew up, **when** I came here to San Lorenzo.

**5- Hypothesis 2 : a reduced form of ye'e**

Preposition forms	Analysis	Agreement category
<i>te</i>	<i>ta-e</i>	non human
<i>nae</i>	<i>na-e</i>	human plural
<i>se</i>	<i>s-e</i>	feminine singular
<i>mue</i>	<i>ma-e</i>	masculine singular (male speaker)
<i>ñe</i>	<i>ñi-e</i>	masculine singular (female speaker)

Table 1. Paradigm of the agreeing preposition

*Te* : non human → much more frequent (with abstract elements and propositional content).  
Only form that got extended as a subordinator.

→ phonological simplification \* *tae* (morphologically complex), but *te*

Person	Prefix	PREP + NP	PREP + Ø
1 <sup>st</sup> person singular	<i>n-</i>	/	<i>ye'e</i>
2 <sup>nd</sup> person singular	<i>pi-</i>		
1 <sup>st</sup> person plural	<i>vi-</i>		
2 <sup>nd</sup> person plural	<i>a-</i>		
3 <sup>rd</sup> person non human	<i>ta-</i>	<i>e</i>	
3 <sup>rd</sup> person human plural	<i>na-</i>		
3 <sup>rd</sup> person feminine singular	<i>s-</i>		
3 <sup>rd</sup> person masculine singular (male speaker)	<i>ma-</i>		
3 <sup>rd</sup> person masculine singular (female speaker)	<i>ñi-</i>		

Table 2. Complementary distribution of the prepositional root forms *e* ~ *ye'e*

→ allomorphs of the same preposition root *e* ~ *ye'e*.

- (14) a- *pyuusamre pimoriko te ipeno pjuena orari'i*  
*pi-uusamre pi-imori-ko ta-e i-peti pjuena ora-ri'i*  
 2SG-be.happy 2SG-visit-TH 3NH-PREP 1PL-house DEM.NH.DIST hour-ri'i  
 You are happy to visit (PREP) **our house** at this time.

- b- *pjuena yoti pimorikri'i vye'e meme.*  
*pjuena yoti pi-imori-ko-ri'i vi-ye'e meme*  
 DEM.NH.DIST night 2SG-visit-TH-ri'i 1PL-PREPLady  
 This evening, you came to visit (PREP) us, Lady.

- (15) a- *juiti vyonñore vechjirikwoyre nae pnokro.*  
*juiti vi-yon-yore vi-echjirikwo-yore na-e pnokro*  
 today 1PL-go-FUT 1PL-talk-FUT 3 PL-PREP DEM.PL.IRR  
 Today we are going to talk **with these** (the rainbows).

- b- *juiti sache nechjirikwoyre pye'e*  
*juiti sache n-echjirikwo-yore pi-ye'e*  
 now day 1SG-talk-FUT 2SG-PREP  
 Today I am going to talk **with** you.

+ *ye'e* found in combination with a third person prefix when no NP follows, i.e. in cases of anaphoric reference.

HYP 2 : *e* is a reduced form of *ye'e* in the context preceding a full NP complement.

	<u>Stage 1</u>	⇒	<u>Stage 2</u>
Context 1	1/2/3- <i>ye'e</i>		1/2/3- <i>ye'e</i>
Context 2	3- <i>ye'e</i> NP [+ frequent]		3- <i>e</i> NP

Figure 2. Hypothesis of reduction of *ye'e* into *e*

▪ Morphosyntactic arguments :

i) no mention of a preposition *te* in Marban (1701)

(16)	<i>tiyapopó</i>	<b><i>tayee</i></b> <sup>3</sup>	<i>anumocù</i>	Marban 1995: 5
	<i>ti-yapo-pó</i>	<i>ta-ye'e</i>	<i>anumocù</i>	
	3-ascend-PERF	3NH.PREP	sky	
	He ascended into heaven.			

ii) in one example (17), *ye'e* is used as a preposition before a full NP.

(17)	<i>techjirikwompo</i>	<i>eno,</i>	<i>eno</i>	<i>trinranono ene na...</i>	<b><i>naye'e</i></b>	<i>no</i>	<i>o'iono</i>
	<i>ty-echjirikwo-ono-po</i>	<i>eno</i>	<i>eno</i>	<i>trinrano-onoene na</i>	<i>na-ye'e</i>	<i>no</i>	<i>'o'e-ono</i>
	3-talk-PL-PERF	PRO.3PL	PRO.3PL	trinitario-PL and HES	3PL-PREPART.PL		rainbow-PL
	They started to talk, the Trinitario people, and ... with... with the rainbows.						

▪ Phonetic/phonological/prosodic arguments:

i) frequency explains phonetic reduction. Influence of Spanish *de* ?

ii) vowel deletion systematically affected the Trinitario dialect of Mojeño

Mojeño (Marban <sup>4</sup> )	Trinitario	
<u>p</u> acure	pkure	canoe
t <u>i</u> mop <u>i</u> cu	tmopku	dark
ĩ <u>ñ</u> e-re	'ñe-re	louse
c <u>o</u> hore- <u>q</u> uie	kjore-gie	cotton tree

Table 3: Comparison of 17<sup>th</sup> century Mojeño and present-day Trinitario : vowel deletion

BUT no vowel deletion in Ignaciano (*-e / -yehe*, Olza Zubiri 2002: 405-410, 865-869)

→ reduction may be independent from the pervasive vowel deletion process.

iii) Nominal and verbal roots : two to three syllables. Grammatical words: monosyllabic

→ reduction of a root to a monosyllabic preposition obeying normal prosodic patterns

<sup>3</sup> Note that Marban systematically omitted the glottal stop in his transcriptions.

<sup>4</sup> Marban's transcription system is almost phonetic, except <c, qu> for /k/. Stress was left out in this paper.

**6- Hypothesis 3 : from noun to preposition**

Prefixes on *e* ~ *ye'e* // possessor on possessed nouns (Cf. Table 4) // subjects on transitive verbs with a third person object (Cf. Table 5).<sup>5</sup>

Nominal forms	Analysis	Agreement category
<i>taeno</i> 'its mother'	<i>ta+eno</i>	non human
<i>naeno</i> 'their mother'	<i>na+eno</i>	human plural
<i>seno</i> 'her mother'	<i>s+eno</i>	feminine singular
<i>mueno</i> 'his mother'	<i>ma+eno</i>	masculine singular (male speaker)
<i>ñeno</i> 'his mother'	<i>ñi+eno</i>	masculine singular (female speaker)

Table 4. Paradigm of the noun *eno* 'mother' with third person possessor prefix

Verbal forms	Analysis	Agreement category
<i>taechjiko</i> 'it speaks to it/ him/her/them'	<i>ta+echjiko</i>	non human
<i>naechjiko</i> 'they speak to it/ him/her/them'	<i>na+echjiko</i>	human plural
<i>sechjiko</i> 'she speaks to it/ him/her/them'	<i>s+echjiko</i>	feminine singular
<i>muechjiko</i> 'he speaks to it/ him/her/them'	<i>ma+echjiko</i>	masculine singular (male speaker)
<i>ñechjiko</i> 'he speaks to it/ him/her/them'	<i>ñi+echjiko</i>	masculine singular (female speaker)

Table 5. Paradigm of the verb *echjiko* 'speak to' with a third person subject and object

- Morphological argument for nominal origin of the preposition :  
Inflected preposition *e* ~ *ye'e* comparable to possessed nouns (agreement with their 'internal argument')
- Syntactic argument : prepositional phrase // genitive phrase on inalienable head (18), (19)

(18) *sapijane*        *su*        *meme*  
*s-apijane*        *su*        *meme*  
 3F-last.name    ART.F    Mom  
 my Mom's last name

(19) *to*        *takunara'i*        *to*        *koje*  
*to*        *ta-kunara'i*        *to*        *koje*  
 ART.NH    3NH-shadow    ART.NH    moon  
 the reflection of the moon

genitive phrase

(DET) 3-N    DET N  
*head*        *modifier*

prepositional phrase

3-*e*    DET N

Figure 3. Comparison of prepositional phrase with genitive phrase

→ *e* : possible reflex of an inalienable nominal root.

<sup>5</sup> The expression of third person subjects in Mojeño is quite complex, involving different factors related to transitivity and pragmatics (Rose, to appear).



- Extra argument : allomorph *ye'e* with very probable nominal origin.
- i) Prosodic argument: two syllables (prosodic pattern of nominals).
- ii) Morphosyntactic argument : use as a generic relational noun in genitive construction of alienable nouns (20) (Cf. Queixalós 2005). Noun : + determiner, + plural suffix (21).

(20) *to moto maye'e ma Pedro*  
*to moto ma-ye'e ma Pedro*  
 ART.NH motorcycle 3M-POSS ART.M Pedro  
 Pedro's motorcycle

(21) *ene mojomontsero tata jmani pye'ono paku*  
*ene mojomono-tse-ro tata jmani pi-ye'e-ono paku*  
 and mangy-PL-contrast-then Sir DEM.NH.PL.PROX 2SG-POSS-PL dog  
 But there are mangy (they have scabies), Sir, your dogs here.

Semantics of the original noun ?

- Olza (Mojeño Ignaciano, Olza 2002: 858): a general noun "propriety of, object of, thing".
- Proto-Arawak reconstruction *-ye* or *-yee* with location or accompaniment meaning ??? (Cf. Piro; Aikhenvald p.c., sources yet to be searched<sup>6</sup>) → logical source for both preposition and relational noun uses.

*e* ~ *ye'e* in prepositional function ≠ relational noun : no determiner, no plural suffix  
 = decategorialization (Heine & Kuteva 2002)

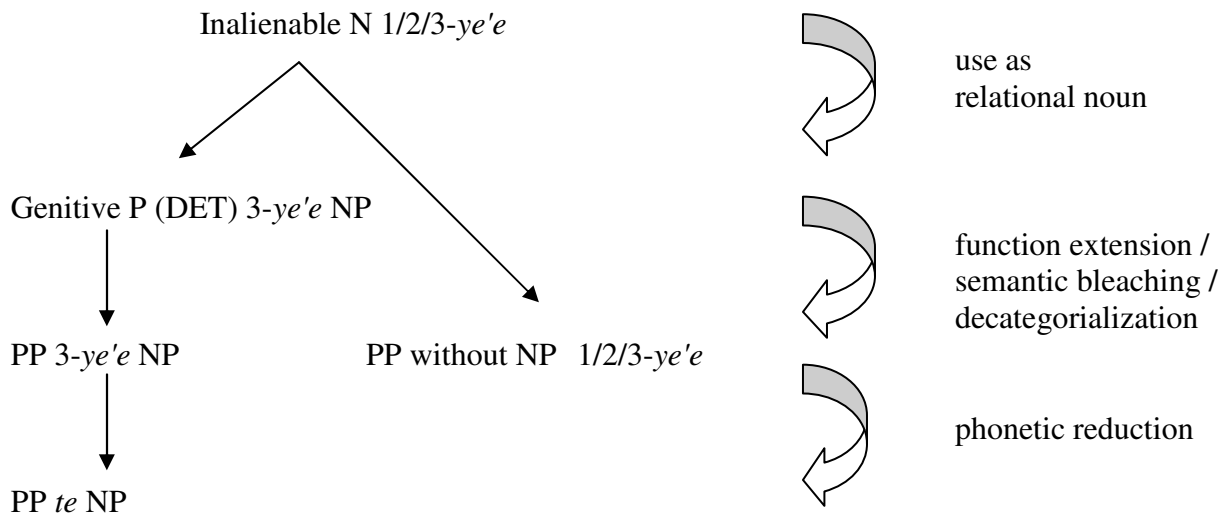


Figure 4. Schema of possible grammaticalization from noun to preposition

<sup>6</sup> No such reconstruction has been found in Payne's lexical reconstructions (Payne 1991).

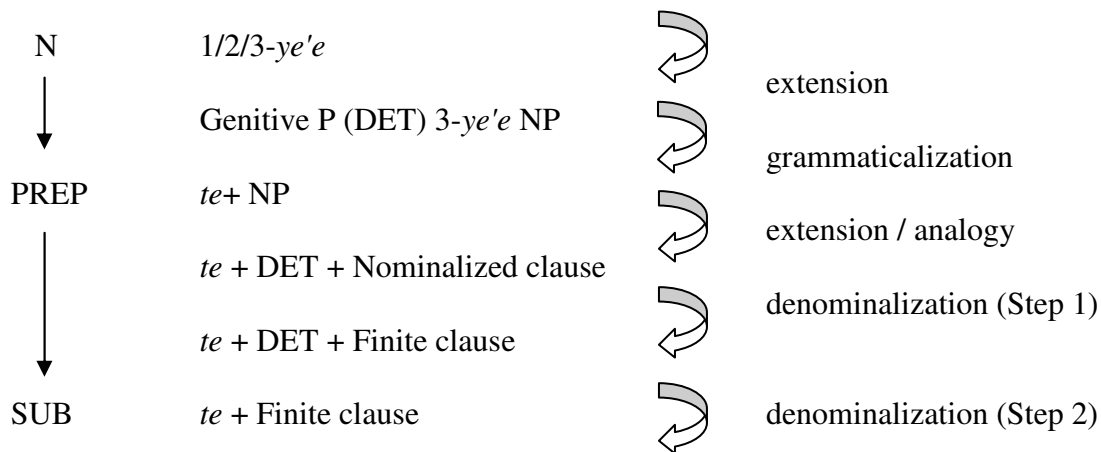
**7- Conclusion**

Figure 5. Schema of possible development from noun to subordinator

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