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From ergative case-marking to hierarchical agreement: a reconstruction of the argument-marking system of Reyesano (Takanan, Bolivia)¹

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This paper reconstructs the history of a set of innovated 1st and 2nd person verbal prefixes in Reyesano which manifest the phenomenon of ‘hierarchical agreement’ in transitive clauses, according to a 2>1>3 hierarchy. I argue that these prefixes come from independent ergative-absolutive pronouns which first became case-neutral enclitics in 2nd position in main clauses and then verb prefixes. And I show that the hierarchical effects that the prefixes manifest in synchrony have nothing to do with the working of a hierarchy during the grammaticalization process. In doing so, the paper contributes to the growing body of diachronic evidence against the idea that the person hierarchy is a universal of human language reflecting a more general principal of human cognition.

¹ Part of the research reported in this paper has been presented at a meeting of the *Société Linguistique de Paris* (March 28th, 2009), a meeting of the research programme “*Ergativité : typologie, diachronie et cognition*” of the French *Fédération de Recherche Typologie et Universaux Linguistiques* in Villejuif (April 3rd, 2009), and the international workshop “Referential Hierarchies in Alignment Typology” of the 44th Annual Meeting of the *Societas Linguistica Europaea* (SLE) in Logroño (Spain, September 8th, 2011). I am grateful to the audiences of these meetings for useful feedback. During the writing stage, in 2014-2015, I have immensely benefited from the guidance by Spike Gildea, while he was on a sabbatical at the Collegium of Lyon. The paper has also benefited from further valuable comments by Sonia Cristofaro, Spike Gildea, Joana Jansen, Françoise Rose, Marine Vuillermet and two anonymous reviewers. Finally, I am grateful to the ASLAN project (ANR-10-LABX-0081) of *Université de Lyon* for its financial support within the program “*Investissements d’Avenir*” (ANR-11-IDEX-0007) of the French government operated by the National Research Agency (ANR).

1 Introduction

Reyesano (aka Maropa) is a moribund language spoken by less than a dozen fluent speakers in the lowlands of Amazonian Bolivia.² The language belongs to the small Takanan family, together with Araona, Cavineña, Ese Ejja and Tacana. The Takanan languages are listed in Table 1, which provides estimates about their current number of speakers as compared to the number of ethnic group members, and with references to the main studies available on these languages.³

Table 1. Takanan languages (figures from Crevels & Muysken 2009)

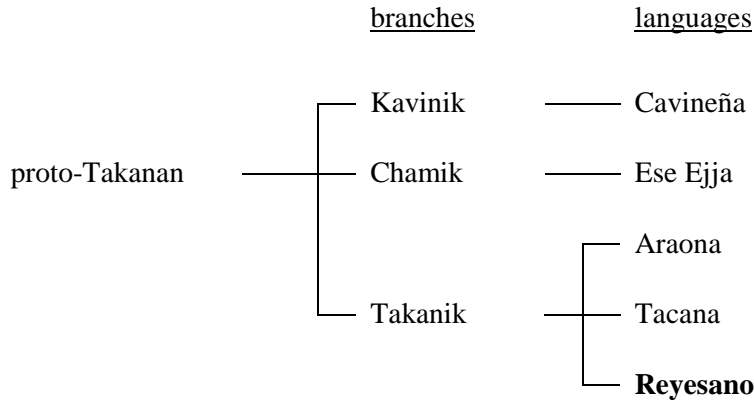
| name | location | no. speakers | no. ethnic group | main studies on the languages |
|-----------------|-------------------|--------------|------------------|---|
| Cavineña | Bolivia | 601 | 1683 | Camp & Liccardi (1989), Guillaume (2008) |
| Ese Ejja | Bolivia & Peru | 518 | 732 | Vuillermet (2012) |
| Araona | Bolivia | 111 | 158 | Pitman (1980), Emkow (2006) |
| Tacana | Bolivia | 50 | 7345 | Guillaume (2013; fieldnotes 2009-2013) |
| Reyesano | Bolivia | 12 | 4019 | Guillaume (2009; 2012; field- notes 2004-2008) |

Figure 1 gives Girard's (1971) internal classification of the Takanan languages consisting of three branches (Kavinik, Chamik and Takanik), all placed at the same level within the family tree. Even though I make use of this classification in this paper, it must be stated that it is exclusively based on phonological and lexical reconstructions, and on fairly limited material. Work remains to be done in order to fully confirm it and to investigate whether the branches can be put into a more complex hierarchy.

² For a general sociolinguistic presentation of the language and an overview of its phonology and grammar, see Guillaume (2010a; 2012).

³ Note that in the case of Ese Ejja and Tacana, the main studies are based the dialects of, respectively, Sonene/Madidi and Tumupasa.

Figure 1. Internal classification of Takanan languages (Girard 1971)



Reyesano has an argument-coding system which is very unusual for a Takanan language, with its lack of an ergative case marking system and its presence of verbal prefixes for indexing SAP. The Reyesano system of person prefixes is not only unusual from a Takanan viewpoint, it is also noteworthy from a typological perspective. As illustrated in (1), the way these verbal prefixes are selected to cross-reference the arguments of transitive verbs is done through what is known as ‘hierarchical agreement / indexation’ (DeLancey 1981; this volume), i.e. according to a set of rules primarily based on the relative ranking of the arguments on a person hierarchy (2>1>3 in the case of Reyesano) rather than on their grammatical functions (A vs. O).⁴

(1) Reyesano transitive verbs with a 1st person argument and a 3rd person argument

a. **1SG** → 3

m-a-ba(-a)
 1SG-PAST-see-PAST
 ‘I saw him/her/it/them’

b. 3 → **1SG**

m-a-ba-ta(-a)
 1SG-PAST-see-3A-PAST

⁴ The full list of abbreviations is provided at the end of the paper. When no source for an example is given, the example comes from my own corpus.

‘he/she/it/they saw **me**’

The only property that Reyesano shares with the argument-coding system of most of the other Takanan languages is the marking of 3rd person A (singular or plural) and 3rd person plural S by way of a suffix *-ta*, which can be seen in (1b) in its 3A marking function.

In Guillaume (2009), I have provided a detailed synchronic description of the Reyesano hierarchical agreement system, together with a general typologically-informed discussion of the argument-coding system of the language. In Guillaume (2011), I have presented a comparative-historical study of the 3rd person verbal suffix *-ta* in the five Takanan languages and argued that it reconstructs to a 3rd person plural subject (S/A) marker **-ta* in proto-Takanan. In the present paper, I propose a historical reconstruction of the remaining properties of the Reyesano argument-coding system, namely the SAP prefixes and the lack of an ergative case marking system.

The first question that is raised is whether the properties unique to Reyesano correspond to innovations or retentions of an older system that could go back to proto-Takanan. I provide evidence that the first hypothesis is the most plausible for both properties, i.e. the rise of person prefixes and the full loss of ergative case marking represent unique developments in Reyesano. The second question to be addressed is how such a system arose diachronically. Here, I put forward the hypothesis that the Reyesano person markers arose out of SAP independent pronouns in 2nd position (P2) in main clauses. In that particular position, they lost their prosodic and distributional autonomy (becoming P2 weak pronouns and then clitics) and their case-marking distinctions. I then suggest that the move from P2 weak / clitic pronouns to verb prefixes is a consequence of the high frequency of occurrence of these pronouns with an immediately following verb, and I invoke language contact as a likely motivation for accomplishing this step. Finally, I argue that the SAP>3 hierarchical pattern is the mechanical result of the obligatory presence of the suffix *-ta* ‘3A’ in pre-Reyesano transitive verbs and that the 2>1 pattern can be accounted for in sociopragmatic terms.

The paper is organized as follows. It begins by a presentation of the main characteristics of the argument-coding system of Reyesano (§2) and those of the other Takanan languages (§3) in terms of case marking, word order (1st versus 2nd position in the clause) and verbal agreement. The reconstruction of the argument-coding system of Reyesano is then presented in sections 4 and 5. Section 4 deals with the loss of case marking (§4.1) and the rise of the verbal prefixes (§4.2). As for section 5, it offers a reconstruction of the hierarchical effect that characterizes the person prefixes, starting with the SAP>3 ranking in mixed scenarios (§5.1) and the 2>1 ranking in local scenarios (§5.2). Finally, section 6 provides a summary of the proposed reconstruction and a discussion of the relevance of this reconstruction to the on-

going debate around the nature of the functional motivations or *raison d'être* of person hierarchies.

2 Reyesano argument-marking system

The argument-marking system of Reyesano is of the head-marking type (Nichols 1986), realized by way of optional nominal or pronominal NPs that are unmarked for case (§2.1) and obligatory pronominal affixes on the verb (§2.2).

2.1 Marking of nominal and pronominal NPs

S, A and O arguments can be optionally expressed by NPs or independent pronouns. When this happens, they are never marked for case. Nominal NPs are syntactically free to occur in any position in the clause (with a strong tendency to occur post-verbally in discursively unmarked contexts). An illustration of the absence of case markers on core NPs in a transitive clause is given in (2a) and in an intransitive clause in (2b). As shown by the translation of (2a), the relative position of the two core NPs in a transitive clause does not have any effect on the interpretation of their grammatical function (A or O).⁵

(2) a. Reyesano transitive clause

A-kachi-ta(-a) te iba_O te awadza_A.
 PAST-bite-3A-PAST BM jaguar BM tapir
 ‘The tapir bit the jaguar.’
 (or, with a different context: the jaguar bit the tapir)

b. Reyesano intransitive clause

A-wudzudzu-a te awadza_S.
 PAST-run-PAST BM tapir
 ‘The tapir ran away (when I shot at it).’

When expressed by independent pronouns, core arguments, whether S, A or O, are realized by a single (neutral) paradigm of forms, provided in Table 2.

⁵ In the first (data) line of the examples, the subscripts A, O and S are used to disambiguate the grammatical function of the arguments.

Table 2 : Reyesano independent pronouns

| PERSON | SG | PL |
|--------|---------------|-----------------|
| 1 | <i>eme</i> | <i>ekama</i> |
| 2 | <i>mi(w)e</i> | <i>mika(we)</i> |
| 3 | <i>tu(w)e</i> | <i>tuna(we)</i> |

These pronouns seem to occur preferentially either in 1st or 2nd position in the clause (as in other Takanan languages; see below), depending on discursive factors.⁶ Examples illustrating the 1st person singular pronoun *eme* in 1st and 2nd position and in the three different grammatical functions are provided below: A in (3), O in (4) and S in (5).

(3) Reyesano

- a. ***Eme***_A *te* *m-e-maneme-da* *te* *bururuo*.
 1SG BM 1SG-IMPV-kill-IMPV BM toad
 ‘(In order to cure a broken limb,) I kill a toad.’
- b. *M-a-ba(-a)* *te* ***eme***_A *dai-me-in* *te* *bakwao*.
 1SG-PAST-see-PAST BM 1SG good-ASF-AUGM BM viper
 ‘I saw the viper very well.’

(4) Reyesano

- a. ***Eme***_O *te* [*ki tata kwana*]_A *dai-me te*
 1SG BM 1SG daddy PL good-ASF BM
m-a-uepe-ta(-a).
 1SG-PAST-raise-A3-PAST
 ‘Me, my parents raised me well.’
- b. *Jiawe=beu te* ***eme***_O [*Tata Dzusu*]_A *m-a-itutia-ta(-a)*.
 today=PERF BM 1SG Mr God 1SG-PAST-send-A3-PAST
 ‘Now, God sent me.’

(5) Reyesano

- a. ***Eme***_S *juwa te m-e-puti*.
 1SG also BM 1SG-FUT-go
 ‘Me too, I’m going to go.’

⁶ Note that in Reyesano, unlike in some other Takanan languages, no systematic study of the distribution of independent pronouns has been conducted yet.

- b. *Tuedu=beu te emes m-a-kwineyu-a te*
 there=PERF BM 1SG 1SG-PAST-arrive-PAST BM
 [*ki fusil=neje*].
 1SG.GEN shotgun=ASSOC
 ‘There I arrived with my shotgun.’

For the purpose of this paper, it is worth mentioning the presence in Reyesano of a ‘reduced’ form of the 2nd person singular pronoun, =*mi*, which is unstressed (therefore analyzed as a clitic) and found in my corpus in P2 in a few conventionalized expressions, as in the greeting question in (6). Note that in the same context, the ‘full’ form of the 2nd person singular pronoun *mi(w)e* can be used instead, with no perceptible difference in meaning, as in (7).

- (6) Reyesano

Sebata =mis? Daipiwe masa.
 how =2SG good more_or_less
 ‘How are you?’ ‘I’m fine.’ (lit. more or less good) (elicited)

- (7) Reyesano

Sebata te miwes? Emes chenu te mal, chiki-ji jiawe...
 how BM 2SG 1SG PITY BM bad disease-ADJZ today...
 ‘How are you?’ ‘I’m bad, I’m sick (lit. with disease)...’

2.2 Verbal agreement⁷

Core arguments, depending on their person, number and/or grammatical function are marked on the verb by way of either suffixes, if they refer to a 3rd person (§2.2.1), or prefixes, if they refer to a SAP (§2.2.2).

2.2.1 3rd person agreement

In transitive clauses, if the A is a 3rd person, whether singular or plural, it is obligatorily marked on the verb, via the suffix *-ta*; in contrast, a 3rd person O is never marked on the verb. The following transitive examples, with a 3rd person A, illustrate the presence of *-ta* when the O is a 2nd person (8a) and when the O is a 3rd person (8b) (repeated from (2a)). (See also examples of the presence of *-ta* when the O is a 1st person in (4a,b) above.)

⁷ For a comprehensive description of the Reyesano verbal agreement system, see Guillaume (2009).

(8) Reyesano transitive clauses with a 3rd person A

a. $3 \rightarrow 2$

E-pue-de *te* *karetus*, *mi-(e-)pacha-ta*.
 IMPFV-come-IMPFV BM cart 2SG-FUT-stamp_on-3A
 ‘(Be careful!) A cart is coming and will run over you (lit. stamp on you)’.

b. $3 \rightarrow 3$

A-kachi-ta(-a) *te* *iba*_O *te* *awadza*_A.
 PAST-bite-3A-PAST BM jaguar BM tapir
 ‘The tapir bit the jaguar’.

In intransitive clauses, if the S is a 3rd person plural, it is normally marked on the verb via the suffix *-ta*,⁸ whose form and distribution within the verb template are identical to those of the 3rd person A marker. If the S is a 3rd person singular, it is never marked on the verb. The following intransitive examples illustrate the presence of *-ta* when the S is a 3rd person plural (9a) and its absence when the S is a 3rd person singular (9b) (repeated from (2b)).

(9) Reyesano intransitive clauses with a 3rd person S

a. 3PL

A-wudzudzu-ta(-a) *te* [*ki* *paku* *kwana*]_s.
 PAST-run-3S.PL-PAST BM 1SG.GEN dog PL
 ‘My dogs were already running (searching for some game animal)’.

b. 3SG

A-wudzudzu-a *te* *awadzas*.
 PAST-run-PAST BM tapir
 ‘The tapir ran away (when I shot at it)’.

2.2.2 SAP agreement

In intransitive clauses, if the S is a SAP, it is obligatorily marked on the verb via one of four prefixes that are distinguished according to the person (1st vs. 2nd) and number (singular vs. plural) of the argument. The SAP prefixes are listed in Table 3 and their use with intransitive verbs exemplified in (10).

⁸ There are a few exceptions; see discussion in Guillaume (2009: 35).

Table 3: Reyesano agreement prefixes

| PERSON | SG | PL |
|--------|------------|-------------|
| 1 | <i>m-</i> | <i>k-</i> |
| 2 | <i>mi-</i> | <i>mik-</i> |

(10) Reyesano intransitive verbs with a SAP S

a. 1SG

m-a-puti-a
 1SG-PAST-go-PAST
 ‘**I** went’

b. 1PL

k-a-puti-a
 1PL-PAST-go-PAST
 ‘**we** went’

c. 2SG

mi-a-puti-a
 2SG-PAST-go-PAST
 ‘**you (sg)** went’

d. 2PL

mik-a-puti-a
 2PL-PAST-go-PAST
 ‘**you (pl)** went’

In transitive clauses, the prefix agreement system is hierarchical. In the same slot, the verb marks the argument that is higher on a 2>1>3 scale, regardless of its grammatical function (A or O), via the same forms that are used in intransitive verbs (Table 3). The marking of the higher ranked participant in all the possible combinations of person and number is illustrated in (11), in mixed configurations, and (12), in local configurations.

(11) Reyesano transitive verbs: mixed configurations (SAP ↔ 3)

a. **1SG** → 3

m-a-ba(-a)
1SG-PAST-see-PAST
'I saw him/her/it/them'

b. 3 → **1SG**

m-a-ba-ta(-a)
1SG-PAST-see-3A-PAST
'he/she/it/they saw **me**'

c. **1PL** → 3

k-a-ba(-a)
1PL-PAST-see-PAST
'**we** saw him/her/it/them'

d. 3 → **1PL**

k-a-ba-ta(-a)
1PL-PAST-see-3A-PAST
'he/she/it/they saw **us**'

e. **2SG** → 3

mi-a-ba(-a)
2SG-PAST-see-PAST
'**you (sg)** saw him/her/it/them'

f. 3 → **2SG**

mi-a-ba-ta(-a)
2SG-PAST-see-3A-PAST
'he/she/it/they saw **you (sg)**'

g. **2PL** → 3

mik-a-ba(-a)
2PL-PAST-see-PAST
'you (pl) him/her/it/them'

h. 3 → **2PL**

mik-a-ba-ta(-a)
2PL-PAST-see-3A-PAST
'he/she/it/they saw you (pl)'

(12) Reyesano transitive verbs: local configurations (1 ↔ 2)⁹

a. **2SG** → 1 / 1 → **2SG**

mi-a-ba(-a)
2SG-PAST-see-PAST
'you (sg) saw me/us'
or: 'I/we saw you (sg)'

b. **2PL** → 1 / 1 → **2PL**

mik-a-ba(-a)
2PL-PAST-see-PAST
'you (pl) saw me/us'
or: 'I/we saw you (pl)'

Having presented the argument-marking system of Reyesano, we now turn to the argument-marking systems of the other languages of the Takanan family (Araona, Cavineña, Ese Ejja and Tacana).

3 Araona, Cavineña, Ese Ejja and Tacana argument-marking systems

Araona, Cavineña, Ese Ejja and Tacana all have very similar argument-marking systems, which contrast radically with that of Reyesano at two levels. Firstly, when their core arguments are realized by nominal or pronominal NPs, these are normally case-marked according to an ergative pattern

⁹ Note that the verbal forms of (12a) and (12b) are identical to those of (11e) and (11g), respectively.

(§3.1). Secondly, agreement marking on the verb in these languages is either limited to 3rd person or altogether absent (§3.2); crucially, none of these languages has a prefix (or any other) slot for SAP indexation.¹⁰

3.1 Ergative marking of nominal and pronominal NPs

Similarly to Reyesano, S, A and O arguments in Araona, Cavineña, Ese Ejja and Tacana can be optionally expressed as nominal NPs and the position of these NPs in the clause is syntactically free. Unlike in Reyesano, however, overt nominal NPs in these languages are case-marked according to an ergative pattern. As illustrated in (13) with examples from Tacana, this pattern is manifested by a special (ergative) marker on the A NP and no marking on the S and the O NP.¹¹

(13) Tacana

a. transitive clause¹²

Jiawe =da id'eti_O biwa=ja_A
 now =TOP sun spider_monkey=ERG
y-abu-ta-(a)ni.
 IMPFV-carry-A3-IMPFV.SIT
 'Now the spider monkey is carrying the sun.'

b. intransitive clause

Biwa_S =da kema [tsakwa echa=su]
 spider_monkey =TOP 1SG.DAT mapajo(tree) branch=LOC
bade-ti-a.
 hang-GO-PAST
 'The spider monkey (that I shot) went to hang on the branch of a mapajo tree.' (elicited)

Core arguments can also be realized by way of pronouns. Pronouns display a very strong tendency to occur either in 1st position (P1) or 2nd position (P2) in the clause, according to the discourse status of their referent. De-

¹⁰ I am not counting as instantiations of 'person agreement/indexation' the verbal affixes expressing commands (imperative, hortative and jussive), which have specific forms depending on the person of the subject of the clause. Nor am I counting a few imperfective/posture inflections which have one allomorph when the subject of the verb is a SAP in A function – e.g. *-eina* in (27b) – and another one when it is a 3rd person (in S or A functions) – e.g. *-ani* in (28b) – or a SAP in S function.

¹¹ As will be seen later, depending on the referent type, ergative marking is more or less consistent in Tacana.

¹² Note that the grapheme *j* refers to the glottal fricative [h].

tailed studies of these forms in Cavineña (Guillaume 2006; 2008; 2010b) and Tacana (Guillaume 2013; fieldnotes 2009-2010) have revealed a number of differences in the morphological, syntactic and prosodic properties of the pronouns whether they are used in the P1 or P2 positions. These differences suggest an analysis in terms of two distinct sets, despite a fair amount of overlapping forms: a set of P1 independent pronouns, listed in Table 4, and a set of P2 weak or clitic pronouns, listed in Table 5.¹³

¹³ The use of pronouns in P2 in Ese Ejja, Araona and Reyesano has not been investigated yet. It is therefore expected that the paradigms of P2 pronouns in these three languages are incomplete.

Table 4: 1st position (independent) pronouns in ergative Takanan languages

| | Cavineña | | Ese Ejja (Portachuelo) | | Araona | | Tacana | |
|---------|----------------|------------------|------------------------|------------------|----------------|-----------------|--------------|-------------------|
| | S/O | A | S/O | A | S/O | A | S/O | A |
| 1sg | <i>ike</i> | <i>era</i> | <i>eya</i> | <i>eyaya</i> | <i>ema</i> | <i>yama</i> | <i>ema</i> | <i>yama</i> |
| 2sg | <i>mike</i> | <i>mira</i> | <i>miya</i> | <i>miyaya</i> | <i>midya</i> | <i>midyaja</i> | <i>mida</i> | <i>miada</i> |
| 3sg | <i>tuke</i> | <i>tura</i> | <i>oya</i> | <i>owaya</i> | <i>joda</i> | <i>wada</i> | <i>tueda</i> | <i>tuaweda</i> |
| | <i>rike</i> | <i>riyara</i> | | | <i>joma</i> | | | |
| 1dl.inc | <i>yatse</i> | <i>yatsera</i> | — | — | <i>tseda</i> | <i>tseada</i> | | <i>etseda</i> |
| 1dl.exc | | | | | <i>tsema</i> | <i>tseama</i> | | <i>etse(j)u</i> |
| 2dl | <i>metse</i> | <i>metsera</i> | — | — | <i>metseda</i> | <i>metseada</i> | | <i>metseda</i> |
| 3dl | <i>tatse</i> | <i>tatsera</i> | — | — | <i>watseda</i> | <i>watseada</i> | | <i>tuatseda</i> |
| | <i>retse</i> | <i>retsera</i> | | | | | | |
| 1pl.inc | <i>ekwana</i> | <i>ekwanara</i> | <i>esea</i> | <i>eseaya</i> | <i>kwada</i> | <i>kwadaja</i> | | <i>ekwaneda</i> |
| 1pl.exc | | | <i>ekwana</i> | <i>ekwaa</i> | <i>kwama</i> | <i>kwamaja</i> | | <i>ekwana(j)u</i> |
| 2pl | <i>mikwana</i> | <i>mikwanara</i> | <i>mikyana</i> | <i>mikyanaya</i> | <i>mikana</i> | <i>mikanaja</i> | | <i>mikwaneda</i> |
| 3pl | <i>tuna</i> | <i>tunara</i> | <i>oya</i> | | <i>kana</i> | <i>kanaja</i> | | <i>tuneda</i> |
| | | | <i>ona(ya)</i> | <i>onaa(ya)</i> | <i>dakana</i> | <i>dakanaja</i> | | |

Table 5: 2nd position (weak/clitic) pronouns in Takanan languages (based on Guillaume 2015a)

| | Cavineña | | Ese Ejja | | Araona | | Tacana | |
|--------------------|--------------------|--------------------------|----------------------|------------------|--------|----------------|--------|--|
| | S/O | A | S/O | A | S/O | A | S/O | A |
| 1sg | =ike ~ =Ø | =era ~ =Ø | =mo =iña eya | ? — eyaya | ema | =ya(?) yama | | yama ema |
| 2sg | =mi(ke) | =mi(ra) | =mi =miña miya | miyaya | | =mi midya | | =mid(a) =mi miada |
| 3sg | =tu(ke) =ri(ke) | =tu(ra) =riya(ra) | ? ? | ? ? | ? ? | ? ? | — — | — — |
| 1dl.inc 1dl.exc | =yatse | =yatse(ra) | — | — | ? ? | ? ? | | etseda etse(j)u |
| 2dl | =metse | =metse(ra) | — | — | ? ? | ? ? | | =metse metse |
| 3dl | =tatse =retse | =tatse(ra) =retse(ra) | — | — | ? ? | ? ? | | — |
| 1pl.inc | =ekwana | =ekwana(ra) | =se esea | =sea ? | kwada | kwadaja | | =ekwana =ekwa ekwaneda |
| 1pl.exc | | | ekwana | ekwaa | kwama | kwamaja | | =ekwana(j)u ekwana(j)u mikwaneda |
| 2pl | =mikwana | =mikwana(ra) | ? ? | ? ? | ? ? | ? ? | | mikwaneda mikwana |
| 3pl | =tuna | =tuna(ra) | ? ? | ? ? | ? ? | ? ? | | — |

vation would correlate with the fact that P2 pronouns are used in discursively unmarked contexts in which the identity of the argument has been established previously. In this position, the pronouns have a number special morphological and prosodic properties that set them apart from lexical nouns or pronouns in P1, and that strongly suggest a process of incipient grammaticalization: they display a range of variant forms (in free variation or conditioned by morphophonological rules), ranging from ‘full’ forms that correspond to the forms used in P1 to ‘reduced’ versions of the ‘full’ forms; they follow either an ergative or a neutral pattern; they are either stressed or unstressed (i.e., clitics; they are normally not modified (by discourse-types particles); and they must occur in a fixed order if there is more than one in that position (the lower on a 1>2>3 hierarchy, the earlier in the sequence).

(15) Tacana

[hjaβédajáma]

- a. *Jiawe* =*da yama*_A *e-manuame*.
 now =TOP 1SG.ERG FUT-kill
 ‘Now I will kill him.’

[twédabeuéma]

- b. *Tueda*_O =*beu ema*_A, *piada*_O *dia-idha*.
 this =PERF 1SG one eat-REM.PAST
 ‘This is what I ate, one (empanada).’

[jéwakabitinehemiðajáma]

- c. [*Ye waka biti=neje*] =*mida*_O *yama*_A *e-manuame*.
 this cow skin=ASSOC =2SG 1SG.ERG FUT-kill
 ‘I’m going to kill you with this whip.’

(16) Tacana

[ájɬsemiáda]

- a. *Ai* =*tse miada*_A *mi=mewa* *abu-kwa*.
 what =MAYBE 2SG.ERG 2SG=ALONE carry-ABIL
 ‘How can you carry it alone?’

[képjamiḍa]

- b. *Kepia* =**mi**_A *e-jeti-einia?*
 where =2SG IMPFV-fetch-IMPFV.SIT.1/2
 ‘Where are you going to fetch it (the cheese)?’

[ḍámi]

- c. *Daja* =**mi**_A *sobrinoo e-kisa.*
 thus =2SG nephew FUT-relate
 ‘So will you say to (your) nephew.’

[ajpwímiḍéma]

- d. *Ai=puji* =**mi**_A **ema**_O *tuajududu-iti-a?*
 what=PURP=2SG 1SG run_away_from-PFV-PAST
 ‘Why did you run away from me?’

Note that the P2 is also the locus for another range of grammatical elements, such as markers of discourse status (ex. =*da* ‘TOP’ in (14a,c) and (15a)), epistemic modality (ex. =*jia* ‘DUBIT’ in (14b) and =*tse* ‘MAYBE’ in (16a)), evidentiality, speaker attitude, etc. When P2 pronouns co-occur with such types of markers, they always come last, whether they are stressed or not.

In Cavineña, there is an additional property that further sets apart the pronouns in P2 from those in P1, which is that a P2 pronoun can co-occur with a P1 pronoun or an NP referring to the same argument in the same clause, as seen in (17a) with the P2 2nd person singular clitic =*mi* and the P1 2nd person singular pronoun *mike* and in (17b) with the P2 3rd person singular clitic =*tu* and the NP *iba* ‘jaguar’.

(17) Cavineña

- a. **Mike**_S =**mi**_S *kwa-wa=ama escuela=ju.*
 2SG =2SG go-PERF=NEG school=LOC
 ‘You didn’t go to school (, did you?) (the priest asked me).’ (Tavo Mayo 1977: 39)
- b. [*Tuke tupuju*] =**tus** **ibas** *tsajaja-chine.*
 3SG behind =3SG jaguar run-REC.PAST
 ‘The jaguar ran behind him (i.e. the jaguar chased him).’ (Camp & Liccardi 1972: 33)

To date, the morphological, syntactic and prosodic properties of pronouns have only been investigated in detail in Cavineña and Tacana. Yet, it seems

that the same distinction between P1 and P2 pronouns is also present in Araona, Ese Ejja and Reyesano. Firstly, as was mentioned in §2.1 for Reyesano and as can be seen in Table 5 for Araona and Ese Ejja, these three languages do have specific P2 pronouns, such as the enclitic *=mi* ‘2SG’, which is found in all the Takanan languages (and reconstructible to proto-Takanan) and, (at least) in Ese Ejja, several other enclitic forms such as *=mo* ‘1SG’, *=se* ‘1PL’, etc.¹⁸ Secondly, in Reyesano, we have also commented that the pronouns that can be used in P1 can also be used in P2 (§2.1). And thirdly, in Araona and Ese Ejja, a review of the examples provided in the available grammatical studies on these languages (Pitman 1980; Emkow 2006 for Araona; Vuillermet 2012 for Ese Ejja) reveals that in most cases, the SAP pronouns are placed either in the P1 or in the P2, as can be seen in the following examples with 1st person pronouns in A function in Araona (18) and Ese Ejja (19).

(18) Araona

- a. *Yama_A teje_O tsae-odi behuehue.*
 1SG.ERG field hoe-REPET now
 ‘I am hoeing my field now.’¹⁹ (Pitman 1980: 93)
- b. *Becata yama_A pia_O*
 later_on 1SG.ERG arrow
tí-shao-bo-ani.
 IPFV.give-COME_AND_RETURN-going-IPFV.SIT
 ‘Later on I will come back and give you the arrow.’²⁰ (Pitman 1980: 93)

(19) Ese Ejja

- a. *Eyaya_A xaxasiye-yobo_O saja-ki-naje.*
 1SG.ERG palm_sp-bud cut-GO_TO_DO-PAST
 ‘I went to cut buds of xaxasiye (chonta palm).’ (Vuillermet 2012: 332)
- b. *Ekwe=*ai*_O eyaya_A ba-ñaki-naje.*
 1SG.GEN=old_sister 1SG.ERG see-COME_TRS&DO-PAST
 ‘I saw my elder sister when I arrived (before going again).’
 (Vuillermet 2012: 307)

¹⁸ Note that in Araona and Ese Ejja, as we commented for Reyesano, the P2 clitics appear to be used in fairly restricted contexts.

¹⁹ This translation is mine. The original, in Spanish, is ‘Yo estoy rozando el chaco ahora’.

²⁰ The original, in Spanish, is ‘Más tarde vendré otra vez y le daré la flecha.’

3.2 Verbal agreement

In three of the four languages with ergative case marking discussed in this section, Araona, Ese Ejja and Tacana, verbal agreement is limited to 3rd person arguments. In the fourth language, Cavineña, verbal agreement is altogether absent. In Araona, Ese Ejja and Tacana, 3rd person agreement is realized the same way as in Reyesano, with a cognate suffix *-ta* or *-ka* that marks 3rd person A arguments (singular or plural) of transitive clauses (20) and 3rd person plural S arguments of intransitive clauses (21). (Note that (20b) is repeated from (13a).)

(20) Tacana transitive clauses with a 3rd person A

a. 3 → 2

Aya_A =papu =mida_O e-dia-ta.
 who.ERG =UNKNOWN =2SG FUT-eat-3A
 ‘Someone will eat you.’

b. 3 → 3

Jiawe =da id’etio biwa=ja_A
 now =TOP sun spider_monkey=ERG
 y-abu-ta-(a)ni.
 IMPFV-carry-3A-IMPFV.SIT
 ‘Now the spider monkey is carrying the sun.’

(21) Tacana intransitive clauses with a 3rd person S

a. 3PL

[Enekita =beu se=kwana]_S e-manu-ta-sa.
 really =PERF fish=PL IMPFV-die-3S.PL-IMPFV.LIE
 ‘Really the fish (pl) were dying.’

b. 3SG

... beu [mesa ebakwa]_S manu-iti-a.
 PERF 3SG.GEN child die-PFV-PAST
 ‘... his child had died.’

Depending on the languages, intransitive and transitive 3rd person markers have varying degrees of productivity. In Tacana, like in Reyesano, 3rd person marking is obligatory in transitive clauses and almost obligatory in intransitive ones. In Ese Ejja, 3rd person marking is obligatory in transitive clauses but fairly rare in intransitive ones (Vuillermet 2012: 373–377). Finally, in Araona, according to both Pitman (1980: 43) and Emkow (2006: 560–566), 3rd person marking is not obligatory in transitive clauses, although it is extremely frequent in the examples provided in the work of both authors. In intransitive clauses, 3rd person marking is even rarer than in Ese Ejja.²¹

4 Reconstructing the history of the Reyesano argument-marking system

The main characteristics of the argument-marking systems of the five Takanan languages are summarized in Table 6.

Table 6: Summary of argument-marking systems of Takanan languages

| Language | (ergative) case marking | 3 rd person ver- bal agreement | SAP verbal agreement | P2 pronouns |
|----------|----------------------------|--|-------------------------|-------------|
| Cavineña | = <i>ra</i> | — | — | x |
| Ese Ejja | =(<i>y/w</i>) <i>a</i> | x | — | x |
| Araona | =(<i>j</i>) <i>a</i> | x | — | x |
| Tacana | =(<i>j</i>) <i>a</i> | x | — | x |
| Reyesano | — | x | x | x |

In the remainder of the paper, I propose a historical reconstruction of the three most noteworthy aspects of the Reyesano argument-marking system: (i) the lack of ergative case marking (§4.1); (ii) the SAP prefixes (§4.2) and (iii) the hierarchical pattern (§5). (Recall that 3rd person verbal agreement has been reconstructed to proto-Takanan, as a 3rd person plural subject marker *-*ta*; Guillaume 2011.)

4.1 Loss of ergative case marking

The absence of case marking in Reyesano, in either nominal or pronominal NPs, could suggest that proto-Takanan did not have case markers and that

²¹ For a more comprehensive discussion and a historical reconstruction of 3rd person agreement in the different Takanan languages, see Guillaume (2011).

ergative case markers would have developed later on in Araona, Cavineña, Ese Ejja and Tacana. An ergative marker would not have developed in Reyesano, which would have therefore retained the old system. Such a view, however, does not seem plausible, for the following reason. In the internal classification of the Takanan languages, if Girard is correct (see Figure 1), Reyesano does not have a separate status, but belongs to a lower branch (Takanik), together with two other languages (Araona and Tacana). Therefore, if Reyesano had retained an old non-ergative case-marking system, the ergative markers in the other languages would have been innovated multiple times and recently. If that were the case, the ergative markers in the different languages should show some evidence of this multiplicity of recent innovations, such as (i) traces of the etymological sources and/or (ii) different forms. What we see, however, is just the opposite.

Firstly, as far as I know, the ergative markers in the different languages do not have evident (non ergative) cognates that could suggest a recent innovation. Secondly, the form and distribution of the ergative markers, whether as clitics on nominal NPs or affixes in independent pronouns, are very similar. This led me, in a preliminary reconstruction work (Guillaume 2015b; 2015c; 2015d), to posit the reconstructability of the ergative marker in proto-Takanan in the form of the proto-morpheme **ra* and the distribution in Table 7.²²

Table 7 : Tentative reconstruction of the proto-Takanan ergative marker

| | | | |
|------------|-------------|----------|--|
| <i>*ra</i> | → <i>ra</i> | Cavineña | |
| | → (y/w)a | Ese Ejja | <i>ya / i,e__</i> <i>wa / o__</i> <i>a / a__</i> |
| | → (j)a [ha] | Araona | <i>ha [ha] / a__</i> <i>a / elsewhere</i> |
| | → (j)a [ha] | Tacana | <i>(h)a [ha] ~ Ø</i> |

Therefore, if proto-Takanan had an ergative case-marking system (morpheme **ra*) and if Reyesano correctly belongs to a sub-branch of proto-Takanan, this necessarily means that Reyesano's ancestor had an ergative marker and that Reyesano has lost it. As for the form of this marker, it was most likely **ja* [ha], considering that *ja* [ha] is the form of the actual ergative marker in both Araona and Tacana, the other two languages from the Takanik branch.

There are additional comparative facts in favor of this scenario. One of them is the 'defective' character of the ergative system of Tacana, which

²² The likely reconstructability of the ergative marker in proto-Takanan also pleads against the possibility that only some languages could have developed the ergative marker which would then have spread through contact to the other languages, but not to Reyesano.

very possibly illustrates what took place in the past in Reyesano. The ‘defective’ ergative system of Tacana can be observed in different areas of argument marking. Firstly, it manifests itself in the ‘optionality’ of ergative marking on nominal NPs in any position in the clause (22) and on 3rd person singular independent pronouns in P1 in main clauses (23).²³

(22) Tacana

- a. *Tataedhi=ja_A =pa bakwa_O tidhi-ta-iti-a.*
 grandfather=ERG =REP viper step_on-A3-PFV-PAST
 ‘Grandfather stepped on the viper.’ (elicited)
- b. *Tataedhi_A =pa bakwa_O tidhi-ta-iti-a.*
 grandfather =REP viper step_on-A3-PFV-PAST
 ‘Grandfather stepped on the viper.’ (elicited)

(23) Tacana

- a. *Tu<aw>eda_A se_O duse-ta-iti-a.*
 3SG<ERG> fish fetch-A3-PFV-PAST
 ‘He brought fish.’ (elicited)
- b. *Tueda_A se_O duse-ta-iti-a.*
 3SG fish fetch-A3-PFV-PAST
 ‘He brought fish.’ (elicited)

Secondly, the ‘defective’ ergative system of Tacana is observed in the variable marking of singular SAP in A function in the P2 in the clause. As already discussed in §3.1, these can be either marked by a specific ergative form, or by a neutral form which can also be used to mark a SAP in O and S functions. Thus compare the 1st person singular ergative pronoun *yama* in (24a) (repeated from (15a)) with its variant form *ema*, used to encode a 1st person singular argument in A function in (24b) (repeated from (15b)), and which formally matches the form of the 1st person singular in O function (25) and in S function (26).

(24) Tacana

- a. *Jiawe =da yama_A e-manuame.*
 now =TOP 1SG.ERG FUT-kill
 ‘Now I will kill him.’

²³ For more details on the phenomenon of optional ergative marking in Tacana, see Guillaume (2014).

- b. *Tueda*_O =*beu* ***ema***_A, *piada*_O *dia-idha*.
 this =PERF 1SG one eat-REM.PAST
 ‘This is what I ate, one (empanada).’

(25) Tacana

- [*Tusa* *ete=su*] ***ema***_O *dusu-ta-idha*
 3SG.GEN casa=LOC 1SG transport-A3-REM.PAST
 ‘He took me to his house.’

(26) Tacana

- [*Mi=e-bianetia=puji*] ***ema***_S *pue-iti-a...*
 2SG=IMPFV-protect=PURP 1SG come-PFV-PAST
 ‘I came to protect you...’

The same phenomenon can be seen with the 2nd person singular pronoun in P2 in A function which, in addition to its ergative form *miada* (27a), has two variants, =*mida* (27b) and =*mi* (27c), which correspond to the absolutive forms in O function (28a,b) and S function (29a,b), again manifesting the complete neutralization of case marking.

(27) Tacana

- a. *Ai* =*tse* ***miada***_A *mi=mewa* *abu-kwa*.
 what =MAYBE 2SG.ERG 2SG=ALONE carry-ABIL
 ‘How can you carry it alone?’
- b. *Kepia* =***mida***_A *e-jeti-einia?*
 where =2SG IMPFV-fetch-IMPFV.SIT.1/2
 ‘Where are you going to fetch it (the cheese)?’
- c. *Daja* =***mi***_A *sobrino*_O *e-kisa*.
 thus =2SG nephew FUT-relate
 ‘So you will you say to the nephew.’

(28) Tacana

- a. *Caimán=ja* =***mida***_O *nid'ujemi-ta-iti-a*.
 caiman=ERG =2SG remove_soul-A3-PFV-PAST
 ‘The damn caiman bewitched you (lit. removed your soul).’

- b. *Corregidor=ja =mi_O, e-kisaba-me-ta-ani...*
 corregidor=ERG =2SG IMPFV-ask-CAUS-A3-IMPFV.SIT
 ‘The corregidor made someone ask you (if you could accompany them...).’

(29) Tacana

- a. *Jiawe=kita =mida_S e-bute.*
 now=INTENS =2SG FUT-go_down
 ‘Now you will go down (from the tree).’
- b. *Kepia =mi_S puti-a?*
 where =2SG go-PAST
 ‘Where did you go?’

(Note that the ‘defective’ ergative marking of singular SAPs is only found in P2 in the clause; in P1, singular SAPs in A function are consistently marked ergative.)

Thirdly, the ‘defective’ ergative system of Tacana is observed in the absence of distinct ergative 1st, 2nd, and 3rd person dual and plural pronouns, whether they are used in P1 (Table 4) or P2 in the clause (Table 5).

Since Tacana, like Reyesano, belongs to a sub-branch of proto-Takanan, and since it is the only ergative Takanan language to display such ‘defective’ properties (in the marking of NPs, 3rd person singular independent pronouns, singular SAP in P2 and non-singular pronouns in any position), the optionality of the ergative case marking in Tacana must necessarily be interpreted as a case of innovation rather than retention, and as evidence of the beginning of loss of the ergative/absolutive case distinction in this language (Guillaume 2014). Considering that Tacana and Reyesano are in a sister relation in the internal classification of the family, it seems very probable that what is happening in Tacana nowadays is exactly what happened in Reyesano at an earlier stage and that in Reyesano the process was fully completed, giving rise to the total loss of the ergative case marker in the marking of nominal or pronominal NPs.

4.2 Rise of person prefixes

The presence of SAP person and number agreement prefixes in Reyesano could suggest that proto-Takanan had such prefixes, that they were retained in Reyesano and lost in the other languages. Among the arguments that one could put forward to defend this view is that their segmental make-up is

fairly reduced (limited to one consonant, *m* and *k*, in the case of 1st person markers), which could suggest that they have been grammaticalized a very long time ago. Yet, there are stronger arguments in favor of the claim that proto-Takanan did not have any of these prefixes and that they correspond to a recent innovation.

4.2.1 Innovation rather than retention

The first argument in favor of the innovation hypothesis is the same as that for innovation in the loss of ergative case marking in Reyesano, namely that within the internal classification of the Takanan family, Reyesano does not form a separate branch (Figure 1). If present in proto-Takanan, the SAP prefixes would still have been present at the proto-Takanik level which means that they would have been subsequently lost independently in all the four Takanan languages that don't have them. This is a very unlikely scenario considering that, according to the present knowledge that we have of these languages, there are no traces of verbal person prefixation in their grammars.

The second argument in favor of innovation comes from the forms of the prefixes, which happen to be very similar to those of the independent (neutral) pronouns in Reyesano and those of the P1 and P2 (absolutive) pronouns of the other Takanan languages, as can be seen in Table 8, which repeats in part Table 4 and includes the Reyesano prefixes. (The formal similarities between the prefixes and the independent pronouns are highlighted in bold).

Table 8: Person prefixes and (neutral) independent pronouns in Reyesano and (absolutive) independent pronouns in the other Takanan languages

| | Takanik | | | | Kavinik | Chamik |
|-----|-----------------------------|--|--------------------------------|--|-----------------------|----------------------------------|
| | Reyesano | Tacana | Araona | | Cavineña | Ese ejja |
| 1sg | m- <i>eme</i> | <i>ema</i> | <i>ema</i> | | <i>ike</i> | <i>eya</i> |
| 2sg | mi- <i>mi(w)e</i> | <i>mida</i> | <i>midya</i> | | <i>mike</i> | <i>miya</i> |
| 1pl | k- <i>ekama</i> | <i>ekwana(j)u</i> / <i>ekwaneda</i> | <i>kwama</i> / <i>kwada</i> | | <i>ekwana</i> | <i>esea</i> / <i>ekwa(na)</i> |
| 2pl | mik- <i>mika(we)</i> | <i>mikwaneda</i> | <i>mikana</i> | | <i>mikwana</i> | <i>mikyana</i> |

As one can observe, the agreement prefixes *mi-* ‘2SG’, *k-* ‘1PL’ and *mik-* ‘P2L’ are all found forming part of their corresponding independent pronouns in all the languages. The only prefix whose shape is not found in the independent pronouns in all the languages is the 1st person singular *m-*, which has nothing in common with Cavineña *ike* and Ese Ejja *eya*. Yet, an *m* segment is present in Reyesano *eme* and Araona and Tacana *ema*. Considering that these three languages belong to the same sub-branch of the family (Takanik) it looks very likely that Reyesano *m-* comes from the grammaticalization of a 1st person independent pronoun with the shape **eme* or **ema* in proto-Takanik. By deduction, one can surmise that the other

members of the prefix paradigm (*mi-* ‘2SG’, *k-* ‘1PL’ and *mik-* ‘2PL’) have developed out of the proto-Takanik independent pronouns for 2SG, 1PL and 2PL, whose exact shape remains to be determined.

Having provided evidence that the Reyesano SAP prefixes are much more likely an innovation rather than a retention of proto-Takanan and that they arose out of independent pronouns, we now turn to the investigation of how these independent pronouns came to develop into agreement prefixes.

4.2.2 *From independent pronouns to agreement prefixes*

Cross-linguistically, we know that the grammaticalization of independent pronouns to agreement markers normally proceeds along the following formal and functional dimensions (Siewierska 2004: 126, 262):

- (30) Grammaticalization path from independent pronouns to agreement markers (Siewierska 2004: 126, 262)
- formal dimension: independent person marker > weak form > clitic > agglutinative affix
 - functional dimension: anaphoric pronoun > pronominal agreement marker > ambiguous agreement marker > syntactic agreement marker

Starting with the formal dimension, if we look for weak forms of 1st and 2nd person independent pronouns in the present-day Takanan languages, we find them in the P2 in main clauses, where there is evidence of incipient grammaticalization, such as alternations between morphological variants, and/or between forms that are stressed or unstressed (i.e., clitics; see §3.1). It is also of note that the use of pronouns in P2 is apparently much more frequent than in P1, a phenomenon which coincides with the discursively unmarked status of pronouns in P2. Having shown that this phenomenon is well documented in at least two languages that belong to two distinct branches of the family (Cavineña and Tacana), and that it is also probably present in the other three (Araona, Ese Ejja and Reyesano), we can probably reconstruct a ‘P2 pronoun slot’ in proto-Takanan main clause structure. In this slot, P2 pronouns would go through the grammaticalization process to become P2 agreement markers, a pattern which is attested in other languages of the world (see for example the P2 agreement markers in Sahaptin and Salishan languages; Gildea & Jansen this volume). And we can make the hypothesis that the present day Reyesano main clauses, with person prefixes on the main verb, are historically cognate to these clauses with a P2 in the different Takanan languages. It is therefore quite likely that in Reyesano, the weakening of independent pronouns in the ‘P2 pronoun slot’ represents the first stage in the path from independent pronouns to pronominal prefixes.

The second stage in the grammaticalization path is that from weak and

highly frequent P2 pronouns to obligatory verb prefixes. Here I argue that this move is the result of the high frequency in which one finds the verb located immediately after the P2 pronouns or pronominal clitics — e.g. in Reyesano (5b), Tacana (15a,c), (16b,d), (20a), Cavineña (17a) and Ese Ejja (19b) —, and the fact that this collocation is probably much more frequent than any other kind of collocation between a P2 pronoun with another class of word. A rough count of the distribution of the Tacana P2 clitic =*mi* ‘2SG’ (in combination or not with another following P2 pronoun) in main clauses in 11 texts reveals the following distribution: out of 57 occurrences of =*mi*, 29 (50%) are immediately followed by the main inflecting verb (or auxiliary) of the clause, 8 (14%) by the (non-inflecting) lexical verb of a complex predicate (with an inflecting auxiliary) and 20 (35%) by some other kind of element or constituent (typically a noun phrase or an adverb-like word).

One could object that P2 pronouns, which tend to be pronounced together with a preceding word, and which are enclitics for some of them (e.g. =*mi* ‘SG’), should develop into suffixes rather than prefixes. This is probably not a strong counterargument, however, for the reason that P2 pronouns do not rigidly combine with a specific preceding word class. The first constituent can be basically anything, a conjunction, a noun phrase, a postpositional phrase, a verb, a subordinate clause, etc. In addition, the last word of the first constituent and the P2 pronouns can be separated by other types of P2 elements (marking discourse status, epistemic modality, evidentiality, etc.) Finally, it is worth adding that a similar phenomenon, known as the Tobler-Mussafia Law, has been documented in some Indo-European languages with P2 clitics, as reported by Spencer & Luís (2012) in their typological study of clitics:

An interesting variant on the second-position placement is shown in Bulgarian and a variety of medieval forms of Romance, in which the first position in the clause can be occupied by a whole variety of constituents and the clitic cluster then follows that first constituent, but *the element following the clitics has to be the main verb* (with or without auxiliary verbs). The exception is when the first element in the clause is itself the main verb. The result is that *the clitics are always adjacent to the verb*. This is the Tobler-Mussafia patterning, and it would appear that it represents an intermediate stage for many languages on the way to the next pattern of placement, adjacent to the verb, represented by Bulgaria’s closest neighbour, Macedonian. (emphases mine) (Spencer & Luís 2012: 73)

One could also wonder whether the Reyesano verb prefixes could not have originated in other types of constructions, such as, for example, subordinate clauses constructions reanalyzed as main clauses, a diachronic pattern

documented in other languages (see for example Gildea 1998). Note that in some Takanan languages (as in Ese Ejja and Tacana), such subordinate clause constructions can encode the arguments by way of unaccented pronominal forms which are formally related to the pronouns of main clauses in the Takanik languages. In Tacana, there is a set of case-neutral pronominal forms which are proclitic to the first word of the subordinate clause, as with (at least) *mi*= ‘2SG’ (see e.g. (26)), *tu*= ‘3SG’ and *tuna*= ‘3PL’. Unfortunately, very little is known about these forms and their exact functions in subordinate clauses, in which case I am not in a position to evaluate this hypothesis any further at this point. On the other hand, it should be noted that Reyesano main clauses with person prefixes on the verb do not display obvious structural differences that would play against the validity of their cognacy with the main clauses in the other Takanan languages, apart from the absence of case marking (but also underway in Tacana) and for a preferred (but not syntactic) verb-initial order. Crucially, most of the Reyesano verbal inflectional morphology is unambiguously cognate with that of at least the languages of the Takanik sub-branch (Araona and Tacana), which also have the 3rd person suffix *-ta* ‘3A’, the past suffix *-a*, the ‘future or imperfective’ prefix *e-*, and the set of posture-based imperfective suffixes. The only ‘abnormal’ component of the Reyesano inflectional morphology, whose historical origin is unknown, is the prefix *a-*, which must be used in conjunction with the past tense suffix *-a* (forming, at least synchronically, a circumfix), as seen in, for example, (2a,b). However, as far as I know, this prefix does not seem to be cognate with any element associated with clausal subordination in Takanan languages either.

Turning to the functional dimension of the grammaticalization path, there is evidence that, at least in one language, Cavineña, a pronoun in P2 can co-occur with an independent pronoun in P1 (or an NP in any position) referring to the same argument in the same clause. This was discussed in §3.1 and exemplified with (17a,b), which are repeated below for convenience. (See also (32b) and (33b).)

(31) Cavineña

- a. *Mike_S =mi_S kwa-wa=ama escuela=ju.*
2SG =2SG go-PERF=NEG school=LOC
‘You didn’t go to school (, did you?).’ (Tavo Mayo 1977: 39)
- b. [*Tuke tupuju*] =*tu_S iba_S tsajaja-chine.*
3SG behind =3SG jaguar run-REC.PAST
‘The jaguar ran behind him (i.e. the jaguar chased him).’ (Camp & Liccardi 1972: 33)

Although such a possibility is not attested in other Takanan languages, its presence in Cavineña suggests that agreement is a possible natural output of the weakening of independent pronouns in P2, and could therefore have occurred in Reyesano.

Having explained how the person prefixes probably developed in Reyesano, we still need to provide an account of why this development took place in this language and not in the other Takanan languages. If I am correct that clause structure with P2 pronouns can be reconstructed to proto-Takanan, this construction is therefore very stable in time in the Takanan family. If we add that within this construction the P2 pronouns can develop most of the characteristics of typical verbal indexation systems (such as agreement, as in Cavineña), there does not seem to be any cogent language internal functional reason for a language to develop an alternative system in which the person markers are attached to the verb rather than retained in P2 in the clause. This suggests that the development of the person prefixes could have been triggered by some external factors, such as multilingualism with languages which had verbal person prefixes or proclitics. In other words, the Reyesano prefix or proclitic pattern could have been borrowed from languages with which the Reyesano speakers would have been very familiar. Here, I would like to suggest that such a situation arose out of the contact that Reyesano most likely had with this type of languages within the Moxos geographic and cultural region, to the east of the Beni river (today Beni department). As a matter of facts, most of the present-day languages which have traditionally bordered Reyesano in that region do have either SAP verbal person prefixes, such as the Arawak language Mojeño (Danielsen 2011: 507; Rose 2011: 474; 2015) and the isolate languages Cayubaba (Crevels 2012a: 365) and Canichana (Crevels 2012b: 442–443), or SAP verbal person proclitics, such as the isolate language Movima (Haude 2011: 565).²⁴ In the 17th-18th centuries, many of these languages were forced to live together within Jesuit missions / reductions (Crevels 2002). The present-day town of Reyes, where most remaining Reyesano people live nowadays, happen to have been such a mission, called *Los Santos Reyes*, founded around 1706 (Guillaume 2012: 193–194). In 1773, according to Block (1994: 87–88), this mission was organized around three groups (*parcialidades*) defined on linguistic criteria, the **Macarani**, the **Majieno** and the **Romano**, which had the practice of exchanging females. Block does not identify the languages spoken by these people. However, the first two seem to correspond to two languages reported to have been spoken in the mission *Los Santos Reyes* at about the same time, the **Maracane** and **Magiana**, and

²⁴ Note that at least one direct neighbor to Reyesano in the same region, the isolate language Mosetén-Chimane, does not have person prefixes or proclitics (Sakel 2011: 542, 544).

for which we have a few words, collected by the governor Lázaro de Ribera at about the same time and published in 1786-1794 (Ribera 1989: 82, 169–170). Interestingly, the **Maracane** (Macarani) seem to have spoken a language similar to that of the present day Reyesano²⁵ while the **Magiana** (Majieno) a language similar to that of the present day Mojeño (Arawak)²⁶. (As for the Romano, as far as I know, we do not have any linguistic material on their language.) Therefore, it seems that in the context of the mission *Los Santos Reyes*, the speakers of the ancestor of Reyesano (the Macarani / Maracane people) have been in very close contact and bilingual with the speakers of a language closely related to the present day prefixing Arawak language Mojeño (the Majieno / Magiana people). It is worth adding that the system of person prefixes in this language, like Reyesano, contains distinct forms encoding 1st vs 2nd person and singular vs plural number (Danielsen 2011: 507; Rose 2011: 474; 2015).

The other four Takanan languages are less likely to have been in close contact and multilingual with the prefixing languages listed above (or any other prefixing languages). Traditionally (and still essentially today) spoken to the west of (or along) the Beni river, they were not immediate neighbors of the prefixing languages of the Moxos geographic and cultural region. Rather, they were neighbors of languages which do not have person prefixes or proclitics, such as the Andean foothill isolate language Leko (Kerke 2006: 174ff), the Andean languages Quechua (Adelaar 2004: 207ff), Aymara (Adelaar 2004: 274ff) and now extinct Pukina (Adelaar 2004: 350ff), and the Amazonian Panoan language Chácobo-Pacahuara (Córdoba, Valenzuela & Villar 2012). Therefore, whether or not the four non-prefixing Takanan languages were multilingual with other languages, in mission²⁷ or in other contexts, it is very unlikely that they were influenced by prefixing languages.

²⁵ This hypothesis is based on the following Maracane words most of which are nearly identical to the words in present day Reyesano: *saypive* ‘good’ (Reyesano *daipiwe* [ðajpiʃe]), *maabesaíme* ‘bad’ (Reyesano *mawe daime* [maʃeðajme] ‘NEG good’), *quetata* ‘the father’ (Reyesano *ke~ki tata* ‘my father’), *qua* ‘the mother’ (Reyesano *kua*), *eperegi* ‘the friend’ (no such word in my Reyesano database but Tacana has *epereji* [eperehi]) and *viba* ‘spider monkey’ (Reyesano *biwa*).

²⁶ The hypothesis is based on the Magiana words *nuu-há* [1SG.POSS-father] and *nuu-héno* [1SG.POSS-mother], which are very similar in the present day Mojeño dialects Ignaciano and Trinitario (Cf. Ignaciano *n(u)-* and Trinitario *n-* for ‘1SG.POSS’, Ignaciano and Trinitario *iya* for ‘father’, and Ignaciano *éna* and Trinitario *eno* for ‘mother’; Françoise Rose p.c. ; Ott & Burke de Ott 1983), and on the *-ana* ending in language name Magiana, which corresponds to the plural suffix in the Ignaciano dialect (Ott & Burke de Ott 1983: 50), which is the dialect geographically the closest to Reyesano.

²⁷ Cavineña and Tacana, like Reyesano, are mission languages whose ancestors were forced to cohabit with other languages of the region. In both cases, the missions were Franciscan, not Jesuit, and they were established more recently: in the case of Cavineña, it was *Misión Jesús de Cavinás*, founded in 1764 (Guillaume 2008: 5–6) while in the case of Tacana it was the three missions *Santísima Trinidad del Yariapu*, founded in 1713, *San José de Uchumiamonas*, founded in 1716 and *San Antonio de Ixiamas*, founded in 1721.

5 The genesis of hierarchical effect

We will now turn to the last, and probably most fascinating, piece of the puzzle, which is the pattern in which SAP forms are selected according to a 2>1>3 person hierarchy in transitive clauses and the fact that the prefix forms do not distinguish the grammatical function played by their referent.

5.1 Hierarchical pattern SAP>3

Starting with the development of the SAP>3 portion of the hierarchy, I argue that it is a direct consequence of the role played by the obligatory verbal suffix *-ta* ‘3A’ in transitive clauses, which indicates that the agent/subject of the clause is a 3rd person (see §2.2.1 and §3.2). I propose that the original presence of this suffix, reconstructible in proto-Takanan (see Guillaume 2011), made it unnecessary for Reyesano to develop another 3rd person affix, which would have been functionally redundant. All that was needed, in order to make the system maximally efficient and economical, was to complement *-ta* ‘3A’ with a set of SAP affixes which, by their mere presence vs. absence, would disambiguate whether the other argument is a 1st, 2nd or 3rd person and whether this other argument refers to the O or to the A. The validity of this scenario is supported by comparative evidence, to be found in the contrastive grammaticalization of independent pronouns in P2 in Tacana and Cavineña. In Tacana, which also has the verbal suffix *-ta* ‘3A’, only SAP (and never 3rd person) pronouns are found in P2 in the clause, as illustrated with 1st person pronouns in (24) and (25) and 2nd person pronouns in (27) and (28).

By contrast, in Cavineña, a language which does not have the verbal suffix *-ta* ‘3A’ (this suffix has become a passive marker; see Guillaume 2011), both SAP and 3rd person pronouns can be found in P2 in the clause, as in (32) and (33).

(32) Cavineña

- a. *Nereda* =*tura*_A = \emptyset _O *a-kware*...
 scold =3SG.ERG =1SG affect-REM.PAST
 ‘She (my mother) scolded me...’
- b. *Metajudya* =*tuke*_O = \emptyset _A *a-ya* *etare*_O.
 tomorrow =3SG.ABS =1SG affect-IMPV house
 ‘Tomorrow I will make (lit. affect) a nest (lit. a house).’

(33) Cavineña

- a. [*Mike chapa metse=tibu*] =*tura*_A =*mi*_O *tupu-ya*.
 2SG dog owner=REASON =3SG.ERG =2SG follow-IMPV
 ‘Since you are the dog_i’s owner, he_i will follow you.’
- b. *Ai*_O =*tuke*_O =*mi*_A *mare-wa?*
 INT =3SG.ABS =2SG shoot.at-PERF
 ‘What did you (sg) shoot at?’

In Reyesano, as in other reported cases, the SAP>3 ranking in mixed configurations is therefore straightforward: it mechanically falls out of the absence of 3rd person weak or clitic pronouns in P2 in pre-Reyesano. As we will see in §6, this development path provides an interesting contribution to the on-going theoretical debate around the functional motivations for the cross-linguistic recurring role of the SAP>3 hierarchy.

As for the fact that the prefixes do not distinguish the grammatical function played by their referent, this is most likely the result of the loss of case-marking in the SAP pronouns, as attested in Tacana where, as discussed in §4.1, (i) singular SAPs in P2 display variants which neutralize the ergative-absolutive distinction and (ii) the whole set of non-singular (SAP and 3rd person) pronouns do not distinguish between ergative and absolutive forms, either in P1 or P2.

5.2 Hierarchical pattern 2>1

In local configurations, the motivation for why there is only one prefix which corresponds to the 2nd person in either 1→2 and 2→1 configurations (thus the 2>1 ranking) cannot be the same as that proposed for the development of the SAP>3 portion of the hierarchy, i.e., in terms of maximizing the efficiency of disambiguation. The reason is that here, there is nothing in the verb (or elsewhere) to help retrieve the grammatical function of this 2nd person prefix (like the *-ta* ‘3A’ suffix in SAP↔3 configurations). And indeed, if we look at local configurations in both Cavineña and Tacana, where the situation is the same, one finds that both 1st and 2nd person pronouns are allowed in P2, that they typically co-occur at the same time, and that 2nd person pronouns obligatorily precede 1st person pronouns, regardless of their grammatical function. The pattern is illustrated with data from Tacana in (34a,b), in the 1→2 configuration, and (35a,b), in the 2→1 configuration. (Note that (34a) is repeated from (15c) and (35b) from (16d).)

(34) Tacana

- a. [Ye waka biti=neje] =*mida*_O *yama*_A e-manuame.
 this cow skin=ASSOC =2SG 1SG.ERG FUT-kill
 ‘I’m going to kill you with this whip.’
- b. E-id’ua =*mida*_O *yama*_A.
 FUT-wait_for =2SG 1SG.ERG
 ‘I will wait for you.’

(35) Tacana

- a. Ai petse *miada*_A *ema*_O dia-kwa.
 what EXCL 2SG.ERG 1SG eat-ABIL
 ‘How can you carry it alone?’
- b. Ai=puji =*mida*_A *ema*_O tuajududu-iti-a?
 what=PURP =2SG 1SG run_away_from-PFV-PAST
 ‘Why did you run away from me?’

Therefore, it is reasonable to assume that in P2 in local configurations (unlike in P2 in mixed configurations) in pre-Reyesano, pronouns expressing both arguments, one for 2nd person and one for 1st person, would have been available for further grammaticalization into verbal prefixes. As it turns out, however, the resulting grammaticalization pattern in Reyesano only makes reference to 2nd person, not 1st person. Logically, this could have happened according to at least two different grammaticalization paths, which will be discussed in turn below: (i) grammaticalization of only 2nd person pronouns or (ii) grammaticalization of both 2nd and 1st pronouns with subsequent loss of 1st person forms.

The first proposed grammaticalization path, which I believe is the most plausible, would be a consequence, during the grammaticalization process, of the cross-linguistically well-documented tendency for speakers to avoid explicit reference to both 1st and 2nd person in local configurations, so as to reduce the face-threatening effects that such configurations frequently have (Heath 1991; 1998; Siewierska 2004: 237–241; DeLancey this volume). As argued by Heath (1991; 1998), this sociopragmatic phenomenon is responsible for a wide range of opaque agreement patterns documented in local configurations in Australian and Amerindian languages. One of the patterns listed by Heath is precisely that which consists in marking only one of the two arguments (‘strategy 3: one of the two markers (elsewhere nonzero) expressed by zero’). Moreover, it appears that it is most commonly the 2nd person that is marked (as in Reyesano) rather than the 1st person (Siewierska 2004: 240).

According to this scenario, pre-Reyesano would have developed a ten-

dency to avoid 1st person pronouns in this context, resulting in the pattern in which 1st person pronouns did not develop into verbal prefixes. Comparative evidence in favor of this hypothesis comes from the observation that in Tacana 2nd and 1st person in P2 in local configuration display a number of discrepancies in terms of their morphology, prosody and distribution. These discrepancies suggest that in this language 2nd person pronouns are at a more advanced stage of grammaticalization than 1st person pronouns, being therefore more prone to become prefixes.²⁸ The discrepancies can be observed in the following tables, which list all the attested forms, combinatorial patterns and frequency of occurrence of 2nd and 1st person singular²⁹ pronouns attested in my whole corpus,³⁰ whether in 2→1 scenarios (Table 9) or in 1→2 scenarios (Table 10).

²⁸ In Cavineña and in the other Takanan languages, I have no clear information whether 2nd and 1st person might display the kind of discrepancies found in Tacana. Yet, it is not unreasonable to believe that such discrepancies are present in these languages and even reconstructible to proto-Takanan, considering that the only P2 pronoun clearly reconstructible to proto-Takanan is a 2nd person form, the 2nd person singular =*mi* (§3.1).

²⁹ Tacana 1st and 2nd person non-singular pronouns (1st person dual inclusive, 1st person dual exclusive, 2nd person dual and 2nd person plural) have been less studied and there are not enough examples and combinations in the available corpus to be able to say whether they display the similar type of prosodic, morphological and distributional imbalance as found between 1st and 2nd person singular.

³⁰ The Tacana corpus consists of 36 narrative texts that I recorded from three women and six men in the village of Tumupasa between 2009 and 2013. In the Toolbox program, these texts amount to 3224 sentences. In addition, the corpus includes 729 sentences that I elicited in isolation and 14 narrative texts that were published by the SIL missionary Ottaviano (1980), which amount to 981 sentences in Toolbox.

Table 9: Morphological, prosodic and distributional properties of Tacana P2 singular SAP pronouns in local (2→1) scenarios

| pattern | 2sg pronoun in P2 (A function) | 1sg pronoun in P2 (O function) | nb. of token (out of 24 examples) | frequency |
|---------|---|---|--------------------------------------|-----------|
| a. | <i>miada</i> | <i>ema</i> | 2 | low |
| b. | = <i>mid(a)</i> ³¹ | <i>ema</i> | 10 | high |
| c. | = <i>mi</i> | <i>ema</i> | 11 | high |
| d. | = <i>mida</i> | Ø (<i>ema</i> in 1 st posit.) | — | — |
| e. | = <i>mida</i> | Ø | 1 | low |
| f. | = <i>mi</i> | Ø (<i>ema</i> in 1 st posit.) | — | — |
| g. | = <i>mi</i> | Ø | — | — |
| h. | Ø | <i>ema</i> | — | — |
| i. | Ø | Ø (<i>ema</i> in 1 st posit.) | — | — |
| j. | Ø | Ø | — | — |
| k. | Ø (<i>miada</i> in 1 st posit.) | <i>ema</i> | — | — |
| l. | Ø (<i>miada</i> in 1 st posit.) | Ø | — | — |

³¹ The reduced variant =*mid* is almost (always?) used in recorded texts. The full variant =*mida* is generally used in elicitation (and while repeating recordings in slow speech).

Table 10: Morphological, prosodic and distributional properties of Tacana P2 singular SAP pronouns in local (1→2) scenarios

| pattern | 2sg pronoun in P2 (O function) | 1sg pronoun in P2 (A function) | nb. of token (out of 70 examples) | frequency |
|---------|--|--|--------------------------------------|-----------|
| m. | = <i>mid(a)</i> ³² | <i>yama</i> | 30 | high |
| n. | = <i>mi</i> | <i>yama</i> | 15 | high |
| o. | = <i>mida</i> | Ø (<i>yama</i> in 1 st posit.) | 11 | high |
| p. | = <i>mi</i> | Ø (<i>yama</i> in 1 st posit.) | 6 | mid |
| q. | = <i>mida</i> | Ø | 5 | mid |
| r. | = <i>mi</i> | Ø | 1 | low |
| s. | Ø (<i>mida</i> in 1 st posit.) | <i>yama</i> | — | — |
| t. | Ø (<i>mida</i> in 1 st posit.) | Ø | — | — |
| u. | Ø | <i>yama</i> | 2 | low |
| v. | Ø | Ø | — | — |

As seen in these two tables, the main differences between 2nd and 1st person P2 singular pronouns in local configurations are as follows:

- **prosody:** 2nd person singular pronouns, whether in A or O function, are almost always unstressed (there are only two exceptions in the whole corpus; cf. pattern a.); by contrast 1st person singular pronouns, whether in A or O functions, are always stressed;
- **morphology:** 2nd person singular pronouns in P2 display alternating forms (= *mid* and = *mi*) which are segmentally different from 2nd person singular pronouns in P1 in the clause (ergative *miada* or absolutive *mida*); by contrast, 1st person singular pronouns in P2 always have the exact same forms as 1st person singular pronouns in P1 (ergative *yama* and absolutive *ema*)³³
- **distribution:** 2nd person singular arguments, whether in A or O functions, are almost always expressed by a 2nd person pronoun (there are only two exceptions in the whole corpus, in the 1sg→2sg configuration; cf. pattern u.); by contrast, 1st person singular arguments are quite

³² The reduced variant =*mid* is occasionally heard in recorded texts. The full variant =*mida* is normally used either in recorded text, in elicitation, and while repeating recordings in slow speech.

³³ Note that in mixed configurations, as illustrated in §3.1, the P2 encoding of 1st person singular argument can be done by way of either the ergative pronoun *yama* (cf. (15a)) or absolutive/neutral pronoun *ema* (cf. (15c)).

frequently unmarked in P2, especially in 1sg→2sg configurations, being either expressed by a pronoun in P1 (cf. patterns o. and p.) or left unmarked altogether (cf. pattern q. and r.)

Departing from the Tacana patterns displayed in Table 9 and Table 10, it is a small step to yield a single grammaticalized pattern of 2nd person singular forms. All that is needed is that the case-neutral *=mida* Ø and *=mi* Ø sequences, in both 2→1 and 1→2 configurations, became more frequent and obligatory, with the 2nd person clitic losing its anaphoric / referential properties and turning into an agreement marker. In the 1sg→2sg scenario, the *=mida* Ø and *=mi* Ø sequences are already fairly frequent, accounting for 33% of the corpus examples (23 tokens out of 70 examples; cf. patterns o, p, q & r), which already indicate a ‘pattern’. In that first scenario, the grammaticalization of the Reyesano 2nd person prefixes would have only required frequency to become higher. In the 2sg→1sg scenario, however, the frequency of *=mida* Ø and *=mi* Ø sequences is much lower, actually close to null (only one token of *=mida* Ø out of 24 examples in the available corpus; cf. pattern e.), which therefore does not seem to form any ‘pattern’.³⁴ In that second scenario, the grammaticalization of the Reyesano 2nd person prefixes would have therefore initially required the introduction of *=mida* Ø and *=mi* Ø ‘patterns’ (i.e., occurring in more examples) before it became highly frequent.

The second logically possible grammaticalization path, which I believe is less probable, is the grammaticalization of both 2nd and 1st pronouns with subsequent loss earlier or later in the process, of 1st person forms through some mechanism of phonological reduction. Arguably, early phonological reduction could have occurred along the lines of what happens in P2 clitic pronouns in Cavineña, where there is a morpho-phonological rule that regularly deletes the suffix of the final clitic (or the whole final clitic if it is a 1st person singular) whenever the sentence contains a following word. The application of this rule can be seen at work in the b-examples in (36), with 1→2 combinations, and (37), with 2→1 combinations (see full details in Guillaume 2006: 182–187; 2008: 576–583; 2010b: 105–107).

(36) Cavineña

- a. *Iwa-baka-wa* *=mike*_O *=era*_A.
 wait_for-SHORT.TIME-PERF =2SG =1SG.ERG
 ‘I’ve waited for you a little bit.’ (elicited)

³⁴ The lack of *=mida* Ø and *=mi* Ø sequences in 2→1 scenarios might be an effect of the small number of examples of that configuration in my corpus (only 24, as compared to the 70 examples of 1→2 configurations).

- b. *Iyaja=kwita=dya =mike_O =∅_A katsa-wana-ya!*
 now=RESTR=FOC =2SG =1SG.ERG beat-ADVERS-IMPV
 ‘I will whip you right away, damn it!’

(37) Cavineña

- a. *Adeba-ya =mira_A =ike_O?*
 know-IMPV =2SG.ERG =1SG
 ‘Do you know me?’ (Camp & Liccardi 1989: 68)
- b. *Tapeke=kwana_O =mi-ra_A =∅_O baka-wa.*
 trip_food=PL =2SG-ERG =1SG ask_for-PERF
 ‘You asked me about (lit. for) trip food.’

However, the presence and effects of a similar deletion rule in pre-Reyesano is not very likely. Firstly, no such rule is attested in Tacana, in spite of the fact that Reyesano is genetically much closer to Tacana than to Cavineña. And secondly, the Cavineña deletion rule applies not only in local (1↔2) scenarios, but also in mixed (SAP↔3) scenarios (cf. (33a,b), (34a,b)) and intransitive scenarios (as well as in non-local, 3↔3 scenarios). Therefore, if such a rule had been present in Pre-Reyesano, it should have resulted in the absence of SAP prefixes in these other scenarios as well.

Finally, one could suggest loss of 1st person forms at a later stage in the grammaticalization process, i.e., once both 2nd and 1st pronouns had grammaticalized into clusters of person prefixes. According to this path, if we take the actual forms of the 2nd and 1st person prefixes (as used in other configurations) and combine them according to the placement rule of P2 pronouns in Tacana (i.e., 2nd before 1st), pre-Reyesano would have first had the four prefix clusters listed in (38).

(38) Putative clusters of 2nd and 1st person P2 pronouns in pre-Reyesano

| | |
|---------------|-------------------|
| <i>mi-m-</i> | 2sg→1sg / 1sg→2sg |
| <i>mi-k-</i> | 2sg→1pl / 1pl→2sg |
| <i>mik-m-</i> | 2pl→1sg / 1sg→2pl |
| <i>mik-k-</i> | 2pl→1pl / 1pl→2pl |

Subsequently, each of the pronoun clusters would have collapsed into a single form which in each combination corresponds to the first member of the cluster (i.e., the 2nd person). Although there is no strong argument against this possible development, there is at the same time no strong argument in

favor of it. In particular, it is unclear what motivation could have triggered such reduction process. And as far as I know, this type of reduction process is not attested elsewhere in Reyesano or in other Takanan languages. As a result, I believe that the first proposed hypothesis, i.e., the grammaticalization of only 2nd person pronouns under the sociopragmatic pressure to avoid transparency in local scenario, is the most plausible of the three, from comparative and cross-linguistic perspectives.

6 Summary and conclusions

In this paper I have proposed a historical reconstruction of the Reyesano hierarchical agreement prefixes together with a reconstruction of the whole argument-marking system. It was argued that the actual system is the result of two recent innovations unique to this language within the Takanan family: the complete loss of ergative marking and the grammaticalization of person prefixes.

The proposed grammaticalization path can be summarized along the following lines. Initially, pre-Reyesano was characterized by consistent ergative case marking on NPs and P1 pronouns in A function, regardless of their position on the referential hierarchy. With NPs, ergative marking was done via an enclitic postposition *=*ja* [ha]. With P1 pronouns, it was realized by way of two distinct sets of ergative vs. absolutive pronouns. In P1, pronouns were used in discursively marked contexts (such as contrastive focalization or topicalization). In discursively unmarked contexts, 1st and 2nd person pronouns (but not 3rd person pronouns) were used in P2. In that position 1st and 2nd person pronouns could co-occur, with the 2nd person pronoun always positioned before the 1st. In P2, the pronouns manifested evidence of incipient grammaticalization (lack of independent stress, presence of allomorphic variants and loss of ergative-absolutive distinction).

Later on, ergative marking was lost with NPs and P1 pronouns as well. The ergative marker *=*ja* [ha] and the ergative set of P1 pronouns first became optional and then fell out of use altogether. Evidence from Tacana suggests that the process started with (1st, 2nd and 3rd person) dual and plural pronouns (these have a unique neutral paradigm in Tacana). It then affected the 3rd person singular pronouns and the NPs (these are optionally marked in Tacana). Finally, the process of loss was completed with 1st and 2nd person singular (these have two distinct ergative vs. absolutive paradigms in Tacana).

In parallel to the loss of ergative marking in NPs, P1 and P2 pronouns, grammaticalization of SAP pronouns continued its progression in P2. Their frequency of use increased and they became obligatory. Some forms preceded others in this process: 1st and 2nd person in intransitive clauses and in

transitive mixed scenarios (1→3, 2→3, 3→1 and 3→2), and 2nd person in the 1→2 local scenario. In the 2→1 local scenario, 2nd person forms gain frequency at a later stage. In local scenarios, 1st person pronouns never became obligatory and therefore never turned into 1st person verbal prefixes in this context. As the use of SAP pronouns became more and more frequent in P2, they lost their anaphoric / referential function, which created a functional need for using a co-referential pronoun in P1, which resulted in P2 pronouns becoming agreement markers.

The last step in the grammaticalization process is that from P2 pronouns to verbal prefixes. This move was made possible by the fact that the verb is the most frequently used word class immediately after the P2 pronouns. And it was likely motivated by the situation of bilingualism with prefixing Arawak languages (most likely the Mojeño language) in the context of the Jesuit mission *Los Santos Reyes* which was founded in the 18th century.

The proposed reconstruction of the Reyesano hierarchical pattern provides an interesting contribution to the on-going theoretical debate around the functional motivations for the cross-linguistic recurring role of the SAP>3 hierarchy and, more generally, the 1 > 2 > 3 proper > 3 human > 3 animate > 3 inanimate ‘nominal’ hierarchy (Dixon 1994), in the working of several grammatical systems (e.g., person agreement, direct-inverse marking, case marking, etc.). Contrary to the traditional view that the person (or nominal) hierarchy would be a universal of human language reflecting a more general principal of human cognition, several recent typological work, such as Cristofaro (2013) or Gildea & Zúñiga (2016), have challenged this view, arguing that it is not supported by the diachronic evidence. They show that the source morphemes and/or constructions that lead to hierarchical effects are not unique but fairly heterogeneous, and that the diachronic changes that affect these source morphemes and/or constructions to eventually lead to grammatical systems with hierarchical effects typically do not involve the intervention of a person hierarchy.

The reconstruction of the Reyesano hierarchical agreement system proposed here supports this view by providing a new case study of a hierarchical pattern (2>1>3) whose genesis did not involve the intervention of the person hierarchy at any stage of its development. In this language, the SAP>3 hierarchical effect is the accidental result of the fact that pre-Reyesano (and proto-Takanan) had a verbal suffix for indexing 3rd person arguments in A function, with the historical consequence that the language never used 3rd person pronouns in P2 and never grammaticalized 3rd person prefixes. In Gildea & Zúñiga’s (2016) typology of sources for hierarchical (and inverse) systems, the Reyesano pattern can be placed within the ‘zero 3rd person forms’ source type (the other sources types being passive constructions, deictic verbal morphology, and cleft constructions). As for the

2>1 hierarchical effect, I argued that it is also the accidental result of a well-known sociopragmatic avoidance strategy, characteristic of local configurations, which prevented speakers from using 1st person pronouns in P2 in transitive.

7 Abbreviations

| | |
|---------|--|
| A | agent/subject of transitive clause |
| [] | multiple word constituent |
| <> | infixation |
| > | higher than |
| → | acting on |
| ↔ | interacting with |
| 1, 2, 3 | 1 st , 2 nd , 3 rd person |
| ABIL | abilitative |
| ABS | absolutive |
| ADJZ | adjectivizer |
| AFIRM | affirmative |
| ASF | adjective suffix (semantically empty) |
| ASSOC | associative |
| AUGM | augmentative |
| BM | boundary marker |
| DAT | dative |
| DUBIT | dubitative |
| ERG | ergative |
| EXCL | exclamative |
| FOC | focus |
| FUT | future |
| GEN | genitive |
| IMPFV | imperfective |
| INT | interrogative |
| INTENS | intensifier |
| INTERJ | interjection |
| LIE | in a lying posture |
| LOC | locative |
| NEG | negative |
| O | patient/object of transitive clause |

| | |
|----------|--|
| P1 | 1 st position |
| P2 | 2 nd position |
| PERF | perfect |
| PERL | perlative |
| PFV | perfective |
| PL | plural |
| PURP | purpose |
| REC.PAST | recent past |
| REM.PAST | remote past |
| REP | reportative |
| REPET | repetitive |
| RES | resultative |
| RESTR | restrictive |
| S | unique argument of intransitive clause |
| SAP | speech act participant |
| SG | singular |
| SIT | in a sitting posture |
| TMP | temporal subordinate clause marker |
| TOP | topic |
| TRS | transitory (motion) |

8 References

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