Tense and evidentiality in Sirionó and Yuki

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1. Introduction

In this paper, I will compare some temporal-evidential markers in two closely related Tupían languages spoken in Bolivia: Sirionó [ISO 639-3: srq] and Yuki (Yuqui) [ISO 639-3: yuq] representing somewhat unusual systems and also grammaticalization paths of a kind that have not been much discussed.

Sirionó and Yuki belong to the Tupí-Guaraní branch of the Tupían languages. They are usually regarded as forming a subgroup together with Guarayú and possibly with the extinct Jorá and Pauserna (e.g. Rodrigues (1984-85))¹. Although Jensen (1999) treats Yuki as a dialect of Sirionó and Yuki and Sirionó are indeed quite closely related, the differences between them ó some of which will be discussed below -- are large enough to make it necessary to treat them as separate languages. Stearman (1984) mentions an estimate by Perry Priest to the effect that Sirionó and Yuki õprobably diverged not more than 300 years agoö. However, there are significant differences at almost any point in the grammar. Thus, either there has been extremely fast language change or the estimate is much too low.

Sirionó is spoken by a few hundred people, most of whom live in the village of Ibiato/Eviato, and the more recent settlement of Pata de Aguila (Nguiray) in the department of Beni, about 60 kms from Trinidad, the departmental capital. Sirionó is a severely endangered language ó the younger generations are largely Spanish-dominant. Information sources for Sirionó are grammars and dictionaries by the missionary linguists Anselmo Schermair and Perry and Anne Priest (Schermair (1949, 1958), Priest & Priest (1967), Priest & Priest (1985)), and studies of written text materials (Schermair (1963), Priest & Priest (1980) and the New Testament translation), of transcribed video recordings done in connection with the documentary film *Let our Songs Live* by Mats Brolin & Anna Cnattingius (1994) and from Mats Brolinøs and my visit to Ibiato in 1999, and interviews with native speakers in 1999 and 2008.

Yuki is spoken in the village of Bia Rekuate, with 200 inhabitants, and located in the department of Cochabamba, close to the river Río Chimore. The only source for Yuki available to me is the grammar (including a vocabulary and fairly extensive texts) by Villafañe (2004), which also includes a vocabulary and fairly extensive texts². Yuki appears to be more vital than Sirionó; according to Villafañe (2004: 7), preschool children are monolingual in Yuki.

2. General about tense, aspect and evidentiality in Sirionó and Yuki

Inflection plays a relatively limited role in the tense-aspect-evidentiality systems of Sirionó and Yuki and is not used at all in the marking of past time reference. Instead, a

system of particles, typically appearing in sentence-second and sentence-final position, are used. These particles tend to appear in fixed combinations, resulting in what synchronically looks like discontinuous markers which combine tense and evidentiality. In Villafañe (2004) these are referred to as õinformational particlesö (õpartículas informativasö or simply õinformativasö) although most of them are complex expressions rather than particles.

Below, I will focus on the tense-evidentiality markings used when speaking of the past; before doing so I will briefly touch upon aspect and future time reference.

2.1 Aspect in Sirionó

The preferred interpretation of a Sirionó sentence with a dynamic verb is, like in many other languages as concerning a single completed event in the past:

(1)Irachaëngea-chosera.potDIR.EVD1SG-washCL-∃ washed the pot.ø[Priest & Priest (1985)]

In other words, perfective aspect can be said to be unmarked in Sirionó. For on-going processes, that is, sentences that would be expressed by progressive aspect in other languages, several different kinds of markings are employed, either alone or in combination with each other. In the following example, an on-going action is marked by a copula a- ko followed by a reduplicated form of the verb ia \exists mendø and combined with two occurrences of the adverb a \exists hereøt

(2) A a- ko se- rao ia a a. here 1SG-COP 1SG-clothes mend REDUP here -I am mending my clothes.ø [Priest & Priest (1985)]

A similar construction is used in the following sentence to speak of an activity extended over an indefinite period in the past:

(3) Kiaa ñi nge mbia riki uba uba ra. forest in DIR.EVD people COP move REDUP CL -In the forest, the people were moving around all the time.ø[corpus]

Generic meaning is sometimes indicated by the particle *kia*, combined with a simple form of the verb:

(4) Mbae tikuasu u kia re? Kiata chö e-u kia resë. what cow eat GEN Q grass FOC 3-eat GEN evidently :What do cows eat? ó They eat grass.ø[elicited]

2.2 Aspect in Yuki

Villafañe (2004: 111) enumerates no less than 17 different kinds of aspectual markings in Yuki, but only a few of them can be said to pertain to aspect in a more restricted sense,

and sometimes the descriptions are too brief to make the semantics of the markers clear. Most notably, the suffix *-ta* is said to express both present progressive and immediate future Villafañe (2004: 113):

(5) A-so-ta che-riyoa-saa.
 1SG-go-FUT 1SG-house-to
 -I am on my way to my house/I am going (to go) to my house.ø

To express habitual meaning, a variety of means are mentioned (Villafañe (2004: 111)); the translations are all in the past, which suggests that they really express habitual past. One construction involves the marker *kia*, apparently a cognate of the Sirionó particle in (4). Another marker is the particle *rague*, which is also said to be used for õimperfect tenseö or õincomplete actionö (õel tiempo imperfecto o que una acción se encuentra incompleta en su ejecuciónö); curiously enough, however, the only example that is given is translated into Spanish using a perfective past verb. Judging from the texts, there is no systematic marking of the perfective/imperfective distinction in Yuki; sentences without any aspectual marking are common irrespective of whether the Spanish translation contains a perfective or imperfective verb form:

(6)	Yaguayukia	bia-ño-ke	t-icha	yagua	j-ire.
	tiger 3SG.kill	man-FOC-PST	SS-pull	tiger	ABS-skin
	The man killed the tiger and pulled the skin from it				

 (7) Nai daie bia-ke o-ye-guroa kiuti-ra: EVD people-PST 3SG-RFL-hunt before-EVD
 -It is said that in the old days people hunted in this way:ø(Spanish: õDicen que antes la people se casaba así:ö)

Villafañe (2004: 113) also mentions a õresultativeö morpheme *-mana*, the definition of which sounds perhaps more like a perfect. For õrepetitive actionö, she mentions reduplication of the verb and the suffix *-ji*.

2.3 Future marking in Sirionó

In the Sirionó tense-aspect-evidentiality system, the distinction that is both most clearly grammaticalized and has the clearest semantics is that between future and non-future. Basically, it can be said that future time reference is always marked grammatically in main clauses. The most general future marker is *ra*, occurring in sentence-second position and having the form *nda* after nasal vowels. Examples:

(8) Avión kuasu ye ra nande-bebe.
 plane big in FUT 1PL.INCL-fly
 ∴Weøll go in a big plane.ø[corpus]

(9) Irao ra e-tea reae. honey FUT 3-collect it_seems
-It seems that heøs going to collect honey.ø[corpus]

If the second position in the sentence also is the final one, the future marker takes the form *rae*:

- (10) Nde-rasi-te rae. 2SG-sick-INTS FUT -[If you eat honey] you@l get sick.ø[Priest & Priest (1980)]
- 2.4 Future marking in Yuki

It has already been mentioned that the progressive marker *-ta* is also used to refer to the immediate future in Yuki (see (4)). For non-immediate future, free morphemes such as *tagore* and *jeta* are used (Villafañe (2004: 110)):

- (11) Yiti tagore guã yichã.
 child FUT 3PL.come tomorrow
 -The children are coming tomorrowø
- (12) Yichã ore-so jeta Bia Rekuate-saa. tomorrow 1PL.EXCL-come FUT (name of village)-to -Tomorrow we are going to Bia Rekuate.ø

If the speaker wants to express his/her own intentions, the normal way to do so in Sirionó is by using what is the clearest example in this language of an inflectional marker, t-, referred to in earlier descriptions as the õintentional formö. In translations into Spanish, it tends to come out as õvoy aí ö:

(13) Soo t-aru nande je. meat INTENT-1SG-get we.INCL OBL -Jøm going to get meat for us.ø[corpus]

In the overwhelming majority of cases, the intentional form is used with the first person singular. It does occur also at least in the second person, but does not then express the intentions of the second person subject, but rather the wishes of the speaker, making perhaps the label õintentionalö slightly misleading:

 (14) T-ere-teakukia u-re je. INTENT-2SG-show we-EXCL OBL
 ∴I want you to show it to us.ø[Priest & Priest (1985: 523)]

A similar prefix exists also in Yuki, but it has another meaning: Villafañe (2004: 119) refers to it as õoptativeö and says that it expresses õel deseo y la exhortación del hablanteö, as in

(15)	T-a-so	de-rii.	
	OPT-1SG-go	2SG-with	
	Let me go with you!		

3. Speaking of the past

3.1 The building blocks

As noted above, the markings used in speaking of the past are usually complex in both languages discussed here. I will first look at the particles that are used as building blocks in these markings and then proceed to the combinations.

The following morphemes are involved in the marking of past time reference and evidentiality in Sirionó and/or Yuki:

Ke is used both in Sirionó and Yuki. Yuki has a special form ki for the 1st person singular. In Sirionó óke is used as a suffix on nouns, as in se-chuchua-ke \exists my former houseø In Yuki, on the other hand, the corresponding nominal suffix has the form ógue, and is thus distinct from the marker ke. As an independent marker of past tense in other contexts, ke is used only in Yuki, and as it appears, rather sparingly. In fact, no clear examples are found in the texts in Villafañe (2004) (and the ones provided in the grammar seem to be constructed), although we shall discuss some borderline cases below. In both languages, the normal position of ke in sentence-second position, alone or together with other particles.

Ra is also found both in Sirionó and Yuki, with the alternating forms *nda* (Sirionó) and *da* (Yuki). Its etymology is not clear. This is another morpheme that appears as an independent marker only in Yuki. Villafañe (2004: 188) classifies it as an õinformative of certaintyö and glosses it as õtestimonial de presente/pasado recienteö. She says that it expresses the speakerøs certainty of what he/she is saying based on participating or having participated in the related facts, which take place õin the present or recent pastö. Villafañe gives two examples, the first of which would rather seem to refer to the immediate future, judging from the translation provided:

(16)	A-kuasia-ta	kiabusoa	chi-rã	o
	1SG-get-FUT	banana	1SG-NOMFUT	and
	e-moro-agõ 3s-vender-FINAL	dinero-rese- dinero-with		

-Iøm going to get some bananas to eat [lit. my future bananas] and to sell for money.ø(Spanish: õVoy a recogerí ö)

(17) Che-kiato yeyu yese yibõ-da.
 1SG-amigo (fish species) two catch-EVD
 ∴My friend caught two fish.ø

An example from another section of the grammar (Villafañe (2004: 195)):

(18) Ha jisa-ño jo-i-ra. this noche-FOC llover-3SG-EVD -It rained last night.ø

She says that it is õused with high frequencyö. It is not clear if this refers to the all uses of -ra/-da or only those cases where it is used independently. In the texts, there is only one additional occurrence of the last-mentioned kind:

(19)I-tõ-j-iresayibo-na-baichichena-da.3SG-skull-ABS-skin3SG-split-EMPH-andtotally-EVD-It [a tiger] split totally his [a manøs] scalp.ø(Villafañe (2004: 264))

In both languages, ra/(n)da consistently appears in sentence-final position (also when it occurs in combination with other markers). Sirionó sentence-final ra/nda should not be confused with the homophonous future marker, which always occurs in sentence-second position and is replaced by *rae* if this is the last position in the sentence.

Daie is found only in Yuki. Its etymology is unclear but it may be related to Sirionó *nda*, which is close in function. Villafañe (2004: 190, 275) presents it as appearing only in the combination *daieí* ra, but the texts contain some cases where ra is missing (see further below).

Nda, then, is limited to Sirionó, where is occurs only together with *ra*, to indicate second-hand information (see below). It consistently occurs in sentence-second position. It is always realized as *nda*, and is thus distinct from the future particle *ra/nda* which has this shape only after a nasal.

 \tilde{No} , which is found in Yuki only, is not really a tense-evidentiality marker in itself, but occurs frequently in combination with the marker *ke*, as will be discussed below. Villafañe (2004: 166) characterizes \tilde{no} as a focus marker, but judging from her examples, it rather has a quite wide range of functions. Yuki \tilde{no} may be cognate with Sirionó *no* which Priest & Priest (1985: 56) translate as \div otra vez; ya; entoncesø and Schermair (1958: 26) as \div también; igualmente; además: yø Something that speaks in favour of that is that both words occur in texts after *abe*, which in both Sirionó and Yuki means \div alsoø, as in the following sentence (Villafañe (2004: 253) :

(20)	Gu-kia	abe	ño-ki mba	guraso.	
	3SG.RFL-son	also	FOC-man	3SG.raise	
	-The man raised his son also.ø				

A and *nai* are both translated as \exists as iø by Villafañe (2004) and are said to form complex õinformativesö, normally in sentence initial position.

3.2 Speaking of the past in Sirionó

In Sirionó sentences that refer to the past, we find two discontinuous markers that differ in a fairly clear way with respect to evidentiality, *keí ra* and *nda...ra*, where the first part is positioned after the first major constituent of the sentence and the second part is sentence-final. After a nasal vowel, *ke* takes the form *nge* and *ra* takes the form *nda*, but the first element of *ndaí* ra always has the same form. Second-position *nda* can thus be both a future marker and a past marker, but it is normally disambiguated by the presence or absence of the final part of the past marker.

In most cases, *ndaí ra* signals a past event that the speaker has learnt about from someone else (second-hand information). It is the normal way of marking past time reference in traditional narratives:

(21) Nyasi nda oso itö kose ra. moon INDIR.EVD 3.go spend_the_night before CL
A long time ago the Moon went for a hunting-tour (lit. spend the night).ø [Priest & Priest (1980)]

Keí ra appears to be unmarked for evidentiality in the sense that it does not say anything definite about the source of information. Since *ndaí ra* is typically used for second-hand information, a central use of *keí ra* is to relate things that happened in the past which the speaker has first-hand knowledge of:

(22) Taita ke se-mbu-tiarö nda. white_man DIR.EVD 1SG-CAU-grow CL -The white man raised me.ø [corpus]

It may also be used for inferred events, as if one sees that the ground is wet and says:

(23) Nyaaki ke ra. rain DIR.EVD CL -It has been raining.ø[elic.]

Both Schermair and Priest & Priest speak of *keí ra* and *nda..ra* as past tense markers. But there are problems with such a labelling. To start with, *keí ra* and *ndaí ra* are used only in main declarative clauses, and are thus not found e.g. in subordinate clauses or questions.

(24)	Ngasë arrive	mose ndia time (tree	species)	je, a		
	sobaiba raise_head	iba REDUP	nda INDIR.EVD	ibate up	kiti towards	ra. CL
	Coming to the foot of the Genipa americana tree, they turned their heads to look upwardsø [Priest & Priest (1980)]					

(25) Aba se-riirï kia re? quién 1SG-son matar Q
Who killed my son?ø[Priest & Priest (1980)] Furthermore, the markers do not seem to be obligatory even in main declarative clauses referring to the past. In the following sentences which introduce a story no past marker is found:

(26)Tikise mbia kereko-ä cose. machete have-NEG people before Tikise-ä mbia kereko. mbe machete-NEG always people have Se-rerecua ño tikise. m 1SG-chief only only machete Se-rerecua uno. 1SG-chief one -Many years ago the people didnot have machetes. They always lived without them. Only my chief had it. He was the only one.ø [Priest & Priest (1980)]

Conversely, sentences with *keí ra* or *ndaí ra* do not always refer to the past. For instance, the following sentences may well be about the present moment:

- (27) Er seï-te ke ra. cold-INTS DIR.EVD CL -It is cold.ø[elicited]
- (28) Se-riirï nyeremo nge ra. 1SG-son two DIR.EVD CL -I have two sonsø[elicited]

The restriction on such uses of *keí ra* or *ndaí ra* appears to be that the statement concerns a state, rather than something dynamic.

The following sentence is thus understood to be about the past:

(29) Nyaaki ke ra. rain DIR.EVD CL -It was raining.ø[elicited]

In (29-30), the tense-evidentiality markers thus seem to have lost their temporal meanings and acquired what seems to be a copula-like function. Given what has been said here, the labeling of the morphemes *ke*, *nda* and *ra* is problematic. The labels used here are DIR.EVD (direct evidential), INDIR.EVD (indirect evidential) and CL (closure).

Tupí-Guaraní languages are known for having temporal affixes not only on verbs but also on nouns. Temporal affixes on nouns are found also in Sirionó, although their use appears to be somewhat marginal. Examples would be -ke former, ex- ϕ as in *sechuchua-ke* imy former house ϕ and i. Such suffixes may be confused with the tense markers spoken of above, since the latter can also occur directly following a noun, as in (30) Soo ke a-u ra. carne DIR.EVD 1SG-eat CL -I ate meat.ø[corpus]

This is probably what led Firestone (1965) (and following him, Nordlinger & Sadler (2004)) to treat ke in examples such as (30) as a noun affix. As we have already seen, however, when ke is part of the kei ra marker, it follows whatever happens to be the first constituent of the sentence, and there is no basis for regarding it as part of noun morphology.

For Yuki, Villafañe (2004: 54) lists *-gue* for nominal recent past (õpasado nominal recienteö), *-guague* for nominal remote past (õpasado nominal lejanoö), and *-rã* for nominal future.

3.3 Speaking of the past in Yuki

Villafañe (2004: 190) divides the õinformational particlesö in Yuki into three groups: (i) õinformational particles of certaintyö; (ii) õsecond hand informational particlesö; (iii) õinformatives of conjecture or probabilityö. With regard to their composition, the bulk of the tense-evidentiality markings found in sentences with past time reference can be divided into two main groups: those containing the marker *daie* and those containing the marker *ke*.

In most cases, *daie* forms a discontinuous combination with sentence-final *ra*. According to Villafañe (2004: 190), *daieí ra* is a õsecond-hand informativeö that indicates the speaker bases him/herself on another personøs authority: õel hablante repite lo que escuchó a otrosö. It is much used in narratives of remote past. The combination of the adverb a -asiø and *daie* is said to frequently occupy the first position in a sentence. However, in almost 20 per cent of the occurrences of *daie* in the texts, there is no *ra* in the sentence. Such cases are not mentioned by Villafañe, and it is hard to see if there is any semantic or pragmatic difference between them and the full marking.

The other group is the markings that contain ke. In her group of õinformatives of certaintyö, Villafañe (2004: 188-189) includes the combination of ke with sentence final ra, and says that it indicates that the speaker õexperienced the í ö õvivió el acontecimiento que comunica al oyenteö. She gives two examples:

- (31) Che-rasi ke-de-si-ra.
 1SG-sick EVD-2PL-mother-EVD
 ∴Your mother told me: I am sick.ø
- (32) Che-rasi ke-tã -da.
 1SG-sick EVD-1SG-mother-EVD
 ∴My mother told me: I am sick.ø

However, there are no other examples of *keí* ra in the book, neither in the grammar or in the texts.

Most commonly, *ke* is preceded by the so-called focus particle $\tilde{n}o$. Villafañe (2004) does not attribute any special status to this combination, she only notes (p.167) that the collocation occurs (\tilde{o} También se combina [el foco $\tilde{n}o$] con las marcas de pasado verbal precediéndo a dicha marca. \ddot{o})

In the texts there are 92 occurrences of the no directly followed by ke/ki. There are only two other instances of ke/ki: in one case it follows closely upon an occurrence of noke. The total number of occurrences of no in the texts is 103, in other words, there are only 11 cases of no not followed by ke/ki. Undoubtedly there is a very high mutual attraction between no and ke/ki. It seems likely that even if the basic function of no is as a marker of focus, the focality element has been attenuated or eliminated. In particular, it should be noted that in about half the cases, no ke is preceded by one of the adverbs a (42 occurrences) or nai (5 occurrences). These combinations are treated as a separate oinformative particleo by Villafane (2004), who says that they indicate that the speaker bases himself/herself on the authority of another person when making a judgment, and that they are is used in narratives about the recent past.

There are a number of problematic points with Villafañeøs treatment of ke and its combinations. Thus, as we have seen, she does not comment on the quasi-obligatoriness of no. Further, there is an asymmetry in the way she handles a when it is followed by *daie* and when it is followed by no ke: with *daie*, it is treated as an optional embellishment of the informative particle, with no ke, it forms a combination with a separate semantics. Distributionally, however, it is hard to see any difference: a always occurs sentence-initially, but never (in the texts) text-initially, regardless of whether it combines with *daie* or no ke. (*Nai* is text-initial in two cases.) Six texts contain no ke in the first sentence, in three of those a no ke is found later in the text. In the light of the distributional data, it would be natural to assume that the combination a + informative particle has a text-binding function and/or marks narrative progression. The latter possibility is compatible with the fact that most of the sentences that start with a are translated to Spanish with a perfective past.

The semantics of the different markers is also problematic. According to Villafañe, we would have:

(a) daieí ra: second-hand information, often remote past narratives ke: past
keí ra: first-hand past
nai/a ño ke: second-hand information, recent past narratives

There is nothing in texts to contradict the characterization of (a) daieí ra, but ke and its combinations are again problematic. The three texts that contain no ke in the first sentence and a no ke further on all start with the adverb kiuti \pm before, a long time agog indicating a remote rather than a recent past. Kiuti also combines with daie in other texts. Furthermore, at least one text starts out with five sentences marked with daieí ra and then continues the story for four sentences with no ke. It thus seems dubious if there is any systematic difference in remoteness between daieí ra and no ke.

4. Conclusions

Both languages illustrate the same kind of process $\acute{0}$ the creation of complex discontinuous temporal-evidential markers from combinations of simple morphemes. The resulting systems look different, however, since the combinations that are grammaticalized partly differ: in Sirion $\acute{0}$ ke $\acute{1}$ ra and nda $\acute{1}$ ra, in Yuki ke $\acute{1}$ ra, (a) daie $\acute{1}$ (ra) and (a) $\tilde{n}o$ ke $\acute{0}$ see Figure 1 for an overview.

The languages also differ in that Yuki to some extent preserves the possibility of using the simple morphemes in isolation.

The semantics of the present-day markers is not entirely clear, and we do not have direct information about the prehistory of the systems. These factors make it difficult to trace developments in detail. It does appear, however, that much of the original content of the morphemes involved has gone lost in the process. In Sirionó, we see a differentiation of static and dynamic predications: assuming that the past tense meaning is the original one, which seems likely although not entirely certain, there has been a loss of that meaning component in the static cases.

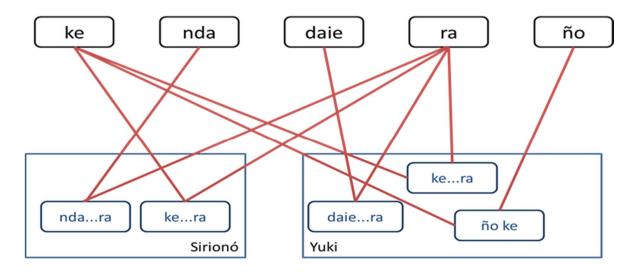


Figure 1. Simple and complex tense-evidentiality markers in Sirionó and Yuki

Abbreviations

1,2,3 ABS	1 st , 2 nd , 3 rd person absolute (=no possessor)
CAU	causative
CL	closing particle
COP	copula
DIR.EVD	direct evidential
EMPH	emphasis
EVD	evidential
EXCL	exclusive (1st person)
FINAL	goal
FOC	focus
FUT	future
GEN	generic
HAB	habitual
INCL	inclusive (1st person)
INDIR.EVD	indirect evidential
INTENT	intentional
INTS	intensifier
NEG	negation
NOMFUT	nominal future
OPT	optative
PL	plural
PST	past
Q	question marker
REDUP	reduplication
RFL	reflexive
SG	singular
SS	same subject

Notes

¹ The current edition of Ethnologue (Lewis (2009)) confusingly places Yuki and Jorá in a subgroup of Tupi-Guarani called õGuarayu-Sirionó-Jora IIö and Sirionó and Guarayú in a group simply called õSubgroup IIö.

 2 Villafañe mentions two unpublished works by the same author, one grammar and one dictionary (Garland (1990a, b)).

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