

Constituent Order and Information Structure in Karitiana*

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1. Overview of the language

Karitiana is spoken today by a community of approximately 400 speakers who inhabit their own reservation (Área Indígena Karitiana) located 95 km to the south of the city of Porto Velho, in the state of Rondônia, Brazil. Karitiana is the last remaining language in the Arikém branch of the Tupian family.

The language has been studied in master's theses by David Landin (1984), Thiago Coutinho-Silva (2008), Luciana Sanchez-Mendes (2009), Andrea Marques (2010), Ivan Rocha (2011), and Ph.D. dissertations by Luciana Storto (1999) and Caleb Everett (2006). Ana Müller has been publishing papers on semantic phenomena in Karitiana since 2006 (Müller, Storto & Coutinho-Silva 2006, Sanchez-Mendes & Müller 2007, Müller & Negrão 2010) whereas Daniel Everett (Everett 1985, 1993) and

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David and Rachel Landin (Landin, D. 1976, 1983, 1984, 1988, Landin D. & Landin, R. 1973, Landin R. 1977, 1982, 1987, 1989) have worked on aspects of its phonology and syntax in the past.

Karitiana is a head-final language, following the usual Tupian pattern in displaying (1) postpositions, (2) possessor-possessed word order in noun phrases, (3) OV order inside nominalized verb phrases, and (4) embedded clause-subordinator word order.¹

- (1) *y-taka-tar-i yn Porto Velho pip*
1-DECL-go-FUT I Porto Velho to
'I will go to Porto Velho.'

- (2) *taso ambi*
man house
'The man's house.'

- (3) *'aam Ø-na-aka-t [gijo taka]-pa-t*
mortar 3-DECL-COP-NFUT corn grind-NMLZR-COP.AGR
'The mortar is a grinder of corn.'

¹ Declarative mood is marked through the following allomorphs: *na(ka)-* is used when there is agreement with the third person and *ta(ka)-* is used when there is agreement with the first or second person. The augment *ka-* is used when the verb root has a first syllable stress. Non-future tense is marked with a suffix which has two allomorphs: *-t* if the verb root ends in a vowel and *-Ø* if it ends in a consonant. The future-tense allomorphy is conditioned by the same criterion as in non-future tense: *-j* is used when the verb ends in a vowel and *-i* when it ends in a consonant. Note that the orthographic symbol *y* stands for a high central vowel. Non-finite clauses are represented in square brackets.

- (4) [ti'y Marcelo 'y tykiri] Ø-na-pa'ira-t João
food Marcelo eat when 3-DECL-anger-NFUT João
'When Marcelo ate the food, João got angry.'

Constituent order in Karitiana varies a great deal, but the following complementary distribution in the word order of the verb and its arguments has been observed: (1) main clauses are never verb-final (VOS, VSO, SVO or OVS), with SVO and VS being the unmarked word orders in declarative clauses; (2) embedded clauses are always verb-final (SOV or OSV for transitives and SV for intransitives). This distribution in word order relates to the presence of inflection, because subordinate clauses are non-finite and have no person agreement, whereas main clauses are always inflected for absolutive person agreement and tense. This is exemplified and explained in the following subsections for several main clause types (declaratives, assertatives, imperatives and non-declaratives) and for different kinds of subordinate clauses.

1.1 Word order and agreement in main clauses

Since Karitiana is an ergative language (Landin 1984), declarative sentences display an ergative-absolutive distinction in agreement: the verb

person agreement prefix agrees with the object of a transitive verb as in (5)-(6) or with the subject of an intransitive verb as in (7)-(8). Following the ergative pattern, word order is SVO and VS.

(5) *yn a-ta-oky-j an*
I 2-DECL-kill-FUT you
'I will kill you.' (SVO)

(6) *an y-ta-oky-j yn*
you 1-DECL-kill-FUT I
'You will kill me.' (SVO)

(7) *y-ta-opiso-t yn*
1-DECL-listen-NFUT I
'I listened.' (VS)

(8) *a-ta-opiso-t an*
2-DECL-listen-NFUT you
'You listened.' (VS)

With a ditransitive verb (SVO OBL), as expected in an ergative language with absolutive agreement, there is verb agreement with the direct object

(the goal), while the indirect object (the theme) is marked with an oblique postposition (*-ty*) as in (9) and (10).

- (9) *yn a-taka-hit-∅ an boete-ty*
I 2-DECL-give-NFUT you necklace-OBL
'I gave you a necklace.'

- (10) *yn ∅-naka-hit-∅ i/taso boete-ty*
I 3-DECL-give-NFUT he/man necklace-OBL
'I gave him/the man a necklace.'

The third person declarative agreement is null as in (10), (3) and (4), but as shown in (12) and (13), it is marked through the prefix *i-* in imperative and non-declarative sentences, where it co-occurs with a free NP.

Imperatives are verb initial and agree with the second person subject if the verb is intransitive (11), but with a transitive verb, the agreement in the imperative mood is with the third person object even when that object is a free NP as in (13). Ditransitive imperatives such as (14) agree with the direct object (goal) as they do in other sentential types.²

² Imperative mood morphology is *-a* in consonant-final verb roots and *-∅* in vowel-final roots. In affirmative imperatives there is a high tone attached to the suffix. Negative imperatives are marked with a different suffix and have low tone.

(11) *a-tar-a*

2-go-IMP

‘Go!’ (INTR)

(12) *i-or-a*

3-catch-IMP

‘Catch it!’ (TR)

(13) *i-m-’y-∅* *osiipo*

3-CAUS-do/take male.initiation.ritual

‘Do/take the *osiipo* (ritual)!’

(14) *y-hir-a*

1-give-IMP

‘Give it to me!’

Assertative mood occurs in affirmative answers to polar questions (Landin 1984). It is found commonly at the beginning and end of narratives (or sections inside a narrative), and it is used to express strong opinions (Storto 2002). Examples can be seen in (15)-(20). Note that third person agreement on the assertative mood is null as in declaratives.³

³ There are three allomorphs to the assertative mood prefix: *pyry-* is affixed to stress-initial verb roots, *pyr-* is attached to vowel-initial roots that do not have initial stress, and

(15) *y-pyr-ahy-dn* *yn*

1-ASSERT-drink-NFUT I

‘I drank.’

(16) *a-pyr-ahy-dn* *an*

2-ASSERT-drink-NFUT you

‘You drank.’

(17) \emptyset -*pyr-ahy-dn* *i/taso*

3-ASSERT-drink-NFUT he/man

‘He/the man drank.’

(18) *y-pyr-ahoj-on* *yn* *ōwã*

1-ASSERT-laugh.at-NFUT I child

‘The child laughed at me.’

(19) *a-pyr-ahoj-on* *an* *ōwã*

2-ASSERT-laugh.at-NFUT you child

‘The child laughed at you.’

py- occurs with consonant-initial roots that do not have initial stress. Non-future tense in the assertative mood is marked by the suffix *-Vn* with consonant-final verbs and its allomorph *-n* with vowel-final verbs (and when the preceding vowel is oral, /n/ predictably becomes pre-oralized as [dn]).

- (20) *Ø-pyr-ahoj-on* *i* *ōwã*
3-ASSERT-laugh.at-NFUT she child
‘The child laughed at her.’

Since assertative sentences are verb-initial (VS and VOS), Caleb Everett (2006) analyzes them as verb-focus constructions, claiming that the verb moves to a pre-core position inside the sentence in such clauses (C. Everett ms) - the same position in which focused NPs occur. In Storto's (1999) analysis, there is verb movement to a left-edge position (C) in all finite clauses (including assertatives and declaratives). C is a complementizer head position in the generative framework adopted by Storto, which is equivalent to a pre-core position in the Role and Reference Grammar framework adopted by Everett (van Valin & Heine, ms), in that both are clause internal left edge positions. According to Storto (1999), there is an additional movement of a focused constituent to the preverbal position (Spec, CP) in declarative sentences - similar to what happens to topics in Germanic V2 languages. In unmarked declarative SVO sentences, the subject moves to a preverbal position, but it is not clear that this is the same position described by Storto (1999) for focused NPs because this movement of S is not associated with focus. C. Everett (2006) claims that there is a left-edge topic position in Karitiana to account

for the unmarked position of the subject in SVO and SV word orders. We must disagree with Everett on this point, because the default word order in intransitive sentences in Karitiana is VS. To refute that hypothesis, we will show statistics of constituent order variation in sentences taken from dialogues and a narrative in Section 3.1, in which the great majority of intransitive declarative sentences occur in VS word order in default environments and SV is found when the subject is focused. Furthermore, we will show in 3.2 that the language uses a shifted topic position at the right edge of the sentence.

Non-declarative sentences such as (21) occur when a character in a narrative uses direct speech. They differ from declaratives in that no mood prefix is present and the third person agreement marker is *i-* instead of zero.

- (21) *dikisy i-oky-t y-man!*
spider 3-kill-NFUT 1-husband
“A spider killed my husband!” (SVO)

1.2 The absence of inflection in verb final subordinate clauses

Subordinate clauses are verb final and non-finite, lacking tense and agreement. When a subordinating head is present, it conveys aspectual

meaning (perfective [translated as “when”], imperfective, posterior, etc.). For this reason, Storto (1999) analyzed subordinate clauses in the language as aspectual phrases.

1.2.1 Adverbial subordinate clauses

Examples (22) and (23) display the same sentence in OSV and SOV word orders. OSV is analyzed as colloquial and SOV as archaic, because the latter is found more often in mythical narratives and the former is the default subordinate word order.

(22) OSV subordinate clause

[*boroja taso oky tykiri*] *Ø-naka-hyryp-Ø òwã*

snake man kill when 3-DECL-cry-NFUT child

‘When the man killed the snake, the child cried.’ (colloquial)

(23) SOV subordinate clause

[*taso boroja oky tykiri*] *Ø-naka-hyryp-Ø òwã*

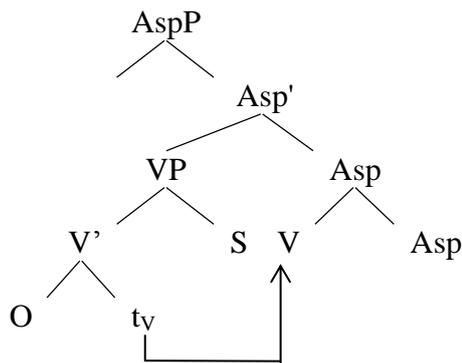
man snake kill when 3-DECL-cry-NFUT child

‘When the man killed the snake, the child cried.’ (archaic)

The phrase structure proposed by Storto (1999) to account for the SOV and OSV word orders shown in examples (22) and (23) is one in which the

archaic SOV word order inherited from Proto-Tupi (Rodrigues & Cabral 2012) was altered to OSV in Karitiana via a historical change in the position of the subject of the verb phrase that projects to the right of V' (as in Figure 1). Additionally, the verb forms a complex head with the aspectual subordinator via head-movement. This is supported empirically by the fact that the verb and all functional heads such as aspect, evidentials and negation constitute a phonological unit in the language - the phonological phrase - creating an environment in which several phonological processes (vowel epenthesis, stress deletion) take place (Storto 1999, Storto & Demolin 2005). Figure 1 represents structurally an OSV adverbial subordinate clause such as (22) with head movement of the verb to the aspectual head forming a complex head [V Aspect].

Figure 1. The structure of OSV subordinate clauses



The second type of subordinate clause in Karitiana, described by Storto (2012) as a “complement” clause, is exemplified in section 1.2.2.

1.2.2 “Complement” subordinate clauses

“Complement” clauses are oblique arguments of a special class of verbs such as *want*, *like*, *think*, *know*, all of which behave as intransitive verbs (Storto & Rocha to appear) but are often used with an optional phrasal or clausal object marked by the oblique postposition *-ty*, as can be seen in examples (24)-(27).

- (24) *y-py-pyting-yn yn [him pisyp Inácio opĩ]-ty*
1-ASSERT-want-NFUT I game meat Inácio cut-OBL
‘I want that Inácio cuts the meat.’

- (25) *y-py-sondyp-yn yn [Inácio 'ep opĩ]-ty*
1-ASSERT-know-NFUT I Inácio tree cut-OBL
‘I know that Inácio cut the tree.’

- (26) *y-py-sondyp-yn yn [Inácio 'ep opĩ*
1-ASSERT-know-NFUT I Inácio tree cut
pasagng-ã]-ty
POSTERIOR-T.V-OBL
‘I know that Inácio will cut the tree.’

- (27) *y-py-so 'oot-yn yn [Inácio 'ep opĩ tyka]-ty*
 1-ASSERT-see-NFUT I Inácio tree cut IMPF.MOT-OBL
 ‘I saw that Inácio was cutting the tree.’

The aspectual heads found in “complement” clauses (*pasagng* ‘posterior’ in example (26) and *tyka* ‘IMPF.MOT’ in example (27)) are also found in main clauses and for this reason they cannot be considered proper subordinating heads. Example (28) has both posterior and imperfective aspect auxiliaries composed with the verb to create the meaning “is becoming happy”.

- (28) *∅-pyr-osedn pasagng tyka-dn Pedro*
 3-ASSERT-happy posterior IMPF.MOT-NFUT Pedro
 ‘Pedro is becoming happy.’

1.2.3 Relative clauses

A relative clause may occur as the subject (29), object (30) or oblique argument (31) of a main verb.

- (29) [*ōwã ti'y 'y*] *∅-na-oky-t boroja*
 child food eat 3-DECL-kill-NFUT snake
 ‘The child who ate the food killed the snake.’

(30) *yn Ø-naka-mĩ-t* [*õwã ti'y 'y*]
 I 3-DECL-hit-NFUT child food eat
 ‘I have hiten the child who ate the food.’

(31) *y-py-so'oot-on yn* [*õwã him 'y*]-*ty*
 1ASSERT-see-NFUT I child meat eat-OBL
 ‘I saw the child who ate the meat’

Relative clauses in Karitiana are head-internal; their heads obligatorily move to the left edge of the clause. We know that because if the verb inside the relative clause requires an oblique object, such as *ti'y-ty* in (32), the head (or pivot) of the relative clause is fronted and marked as oblique. If the head of the relative were external, the oblique morphology would not be expected, as in (31).

(32) *y-py-so'oot-on yn* [*ti'y-ty õwã*
 1-ASSERT-see-NFUT I food-OBL child
pytagngã]-*ty*
 rob-OBL
 ‘I saw the food that the child has robbed.’

1.3 Discussion

Storto (1999) describes the complementary distribution between main and subordinate clauses and explains it in terms of an obligatory verb movement in finite clauses similar to V2 in Germanic languages, whereas Landin (1984) and C. Everett (2006) state that the language is SVO and has no agreement. They posit that person prefixes on verbs are pronouns and that an optional repetition of the subject and object is possible post-verbally to account for the co-occurrence of a person prefix (considered by them to be a cliticized pronoun) and a free pronoun, as seen in examples (5)-(10). C. Everett's (2006) own account of assertative clauses is challenged because of this view, since he considers them to be verb focus constructions that are verb-initial, but they surely cannot be verb-initial when they are preceded by person prefixes – pronouns in his analysis (see (15), (16), (18) and (19)). We take the view that, although the system of agreement derives historically from cliticized pronouns, person morphemes on the matrix verb cannot be considered pronouns synchronically in Karitiana, because free NPs/pronouns clearly co-occur with agreement in all types of main clauses (see examples (5)-(10), (13), (15)-(16), (18)-(19) and (21)), whereas in embedded clauses this *does not* happen. The agreement analysis explains all the data in Karitiana, whereas the pronoun analysis does not explain the optional repetition of pronouns.

As we show in Section 3.2, pronoun repetition is a possibility in the language, but only subjects may be repeated in a special shifted topic construction. In order for Landin's (1984) and Everett's (2006) hypotheses to be correct, object pronouns would have to be repeated as well, but that is unattested outside of topic shift.

2. Focus phenomena in main clauses

Karitiana is a language that grammaticalizes focus in that there is a left-edge position inside the clause for *wh*-phrases, focused noun phrases (whether used as answers to *wh*-phrases or not), subjects of cleft sentences, or heads (pivots) of head-internal relatives. Besides displaying a syntactically defined left-edge position for focus, Karitiana also has two different morphemes that prefix the verb when the focused noun phrase is an object – *a-* and *ti-* – used for declarative and non-declarative object focus constructions, respectively.

2.1 Focus in wh-environments

Storto (1999, 2003) has shown that in *wh*-questions (see examples (33) and (35)) and answers (see (34) and (36)) in Karitiana, the *wh*-phrases are

obligatorily moved to the left periphery of the sentence. Examples (33)-(36) are taken from these works but the glosses are reanalyzed according to the discoveries of Storto (2008, 2010).⁴

(33) *morã i-'y-j ohy?*

WH 3-eat-FUT potato

‘Who will eat potatoes?’

(34) *tasø Ø-naka-'y-j ohy*

man 3-DECL-eat-FUT potato

‘The man will eat potatoes.’

(35) *mora-mon tasø ti-i-'y-t?*

WH-COP man OFC-PART-eat-ABS.COP.AGR

‘What is it that the man ate?’

(36) *ohy a-taka-'y-t tasø*

potato DOFC-DECL-eat-NFUT man

‘The man ate potatoes.’

⁴ The ergative-absolutive pattern of agreement is not the only phenomenon displaying ergativity in Karitiana. There is also an obligatory clefting of *wh*-clauses in the non-future tense (with the interrogative copula *mon*) when the *wh*-phrase is an intransitive subject or object. The structure of such cleft *wh*-questions, exemplified in (39), in which the object is *wh*-fronted and the verb gets Object Focus Construction (OFC), with participial and absolutive copula agreement morphology, will be discussed in more detail in section 4.2.

Examples (37)-(42) are taken from a dialogue. Here we can see a wh-fronted adjunct (38) and two examples of a wh-fronted argument, (40) and (42).⁵

(37) *tikat aka a-tar-i an-o yj-akan ano?*
 when COP 2-go-FUT you-EMPH 1.INCL-village you(TOP)
 ‘As for yourself, when is it that you will go to our village?’

(38) *dibm y-taka-tar-i yn*
 tomorrow 1-DECL-go-FUT I
 ‘I will go tomorrow.’

(39) *mora-mon hoop an ti-i-m-’a-t?*
 WH-COP there you OFC-PART-CAUS-do/make-ABS.COP.AGR
 ‘What is it that you are doing there?’

(40) *ga y-hot yn ti-i-m-’a-t*
 garden 1-to I OFC-PART-CAUS-do/make-ABS.COP.AGR
 ‘It is a garden I am making for myself.’

(41) *morã i-aka-j hoop i-hot-Ø?*
 WH 3-COP-FUT there PART-go.PL-ABS.COP.AGR

⁵ The repetition of the subject as a topic in example (37) will be discussed in Section 3.2.

‘Who is it that will go there?’

(42) yn Ø-na-aka-j hoop i-tat-Ø

I 3-DECL-COP-FUT there PART-go-ABS.COP.AGR

‘It is I that will go there.’

The examples presented above show that the possible ways to answer a *wh*-question are as follows: with mono-clausal sentences such as SVO declaratives (34), OVS declarative object focus sentences (36) a, as well as with bi-clausal sentences such as clefts (40) or copular sentences (42). The properties of clefts and copular sentences in Karitiana will be discussed in more detail in Section 4.2.

Since *wh*-phrases in questions and phrases that answer *wh*-questions are sources of new information in the discourse, we consider that Karitiana has a left-edge focus position to which focused phrases must move in *wh*-environments. In section 2.2 we show that this left-edge focus position also occurs outside of *wh*-environments. Henceforth, examples of focus and topic phenomena taken from narratives will be presented in context, along with the previous and following sentences, to enable a discussion of information structure.

2.2 Declarative and non-declarative object focus constructions

Examples (43)-(49) are taken from an excerpt of the *Osiipo* narrative, which describes the first tame game that usually approaches hunters (represented by a first person plural inclusive pronoun *yjxa*) two months after they have performed the male initiation ritual. In this excerpt, each animal that is affected (either stunned or made tame) by the magic of the ritual, is introduced as new information in an OVS sentence marked by declarative object focus morphology (the verb prefix *a-*). It is possible to know that the object is moved to a left-edge position *inside* the clause because there is no pause between the object and the verb in any of these sentences.⁶

- (43) *a-mbygng*, [sypomp oti-dna-t yj-aka-t],
 that-after two moon-ADVZR-OBL 1.INCL-COP-OBL
 Ø-taka-heredna-'oot-Ø him sikirip pitat
 3-DECL-approach-ITERAT-NFUT game tame very
 ‘After that, when two months have passed, the really tame game started to approach us for the first time.’

- (44) *de*, *him* Ø-a-ta-ompong~ompong-Ø *osiip*
 deer game 3-DOFC-DECL-stun-REDUPL *osiip*

⁶ In (44) there is a pause between the two objects mentioned (*de*, *him*), but not between the second object and the verb. The verb is itself reduplicated in this case to indicate a plurality of events (Storto, to appear), suggesting that the object is to be interpreted as plural (the conjoined phrase *de*, *him*, meaning ‘deer and game’).

‘Osiip stuns and stuns the DEER, the GAME.’

(45) *him Ø-a-ta-ompong-Ø osiip*

game 3-DOFC-DECL-stun-NFUT osiip

‘Osiip stuns the GAME.’

(46) *sojxa Ø-a-ta-ompong-Ø osiip*

wild.boar 3-DOFC-DECL-stun-NFUT osiip

‘Osiip stuns the WILD BOAR.’

(47) *him Ø-a-m-sikini padni osiip*

game 3-DOFC-CAUS-remember NEG osiip

‘Osiip makes the GAME curious.’

(48) *him Ø-a-ta-m-pa'ira-t osiip*

game 3-DOFC-DECL-CAUS-angry-NFUT osiip

‘Osiip makes the GAME upset.’

(49) *a-tykiri, yj-ta-so'oot hāraj~Ø yjxa him*

that-when 1.INCL-DECL-see well-NFUT we game

herednat yjxa

approaching us (TOP)

‘Then, as for us, the we like the game approaching us.’

The object focus morpheme *a-* exemplified in (44)-(48) is restricted to the default mood type in Karitiana, that is, declaratives.⁷ When object focus is used in a non-declarative sentence, be it an interrogative, negative or embedded clause (including relatives and the clausal complement of a copula in a cleft sentence), another morpheme must prefix the verb: *ti-*. Landin (1984) was the first to point out that content questions in which the fronted phrase is an object must be marked obligatorily in Karitiana by the verb prefix *ti-*. Storto (1999, 2003, 2008) has shown that answers to these questions can be clefts (in which the copula has a clausal complement headed by a nominalized verb prefixed by *ti-*) or declarative object focus sentences marked by the prefix *a-* illustrated above. In both cases the object of the verb prefixed by the focus morpheme must occupy the preverbal sentence-initial position.

In the *Osipo* narrative, there is one single example of a non-declarative object focus construction used as a cleft sentence that focalizes *a* ‘that’, the object of the verb *oky* ‘to kill’ (51).

⁷ Its use is also restricted to sentences with third person subjects, perhaps because agreement has a fixed null form (3rd person). In Section 4.2 it will be seen that main clause agreement in object focus constructions causes anti-agreement with the subject of a transitive verb (explained as the result of a case split).

(50) *teteet kej yj-pan-ty yjxa*
 run get 1.INCL-weapons-OBL we
a-'oot-∅ ∅-na-aka-t pikom
 that-ITERAT-ABS.COP.AGR 3-DECL-COP-NFUT monkey
 ‘We start to run and get our weapons and there are monkeys
 already.’

(51) *a ∅-na-aka-t yjxa ti-i-oky-t*
 that 3-DECL-COP-NFUT we OFC-PART-kill-ABS.COP.AGR
 ‘THAT is what we kill.’

(52) *piharap i-ki padni him*
 shortage 3-COP.PL NEG game
 ‘There is no shortage of game.’

In example (51), the storyteller uses a cleft sentence to emphasize that the game killed by men who have passed through the male initiation procedures is not just any game, but game that the hunter attracted (as described in sentence (50)) with the magic that results from the *Osiip* ritual. In this respect, this kind of focus can be considered contrastive focus, because it is comparing “that” with a contextually presupposed “other” type of game.

2.3 Subject focus

Storto (2010) discusses various aspects related to the syntax and semantics of copula sentences in Karitiana. Among other things, she shows that subject *wh*-sentences can be answered by either SV declaratives or declarative copular sentences. The latter must display the order SV-Complement, where the complement is a nominalized small clause headed by an intransitive verb. The subject of the copula is the original object of the verb heading the clausal complement; it has been moved to sentence-initial position.

When the fronted constituent in a *wh*-question or answer is a subject, no special morphology is attached to the verb, as was shown in examples (33), (34), (37) and (38) of Section 2.1, but the movement of the phrase that conveys new information to the left peripheral position inside the clause is still obligatory.

The excerpt given in sentences (53)-(58) exemplifies the use of subject focus in a non-declarative passive sentence (56).⁸

⁸ Negative sentences in Karitiana may occur with an erased negation word, as is the case in example 55 (compare with (57)). It is possible to identify the sentence as negative in the absence of the negation word because in the negative form there are no mood or non-future tense morphemes.

(53) [*três dias yj-aka-t*] *yjxa Ø-naka-'y-t*
 three days 1.INCL-COP-OBL we 3-DECL-eat-NFUT
sojsara
 spicy.broth
 ‘After three days, we eat spicy broth.’

(54) *sojsara, ãom hopo, ãom pyka, ãom porojo*
 spicy.broth, corn seeds corn cob.smoked corn cob.roasted
 (*Ø-na-aka-t*) *yjxa ti-i-'y-t*⁹
 3-DECL-COP-NFUT we OFC-PART-eat-ABS.COP.AGR
 ‘Spicy broth, roasted corn seeds, corn cobs roasted with the
 leaves on, corn roasted in a cob, is what we eat.’

(55) *i-a-'y ese*
 3-PASS-drink water
 ‘Water is not to be drunk.’

(56) *kytop i-a-'y-t*
 chicha 3-PASS-drink-NFUT
 ‘Chicha is to be drunk.’

⁹ The verb shown in parenthesis was inserted here in brackets to show that this sentence is a copular sentence in which the copula verb was deleted. We will see in Section 4.2 that copular sentences inflected in non-future tense may be optionally erased.

(57) *i-a-'y padni ese*
3-PASS-drink NEG water
'Water is not to be drunk.'

(58) *yj-'iti hadna tzym*
1.INCL-father word/teaching according.to
'According to our fathers' teachings.'

In this context, the focused phrase *kytop* in (56) is undoubtedly presented as new information, and as such it is placed in a preverbal, sentence-initial position. When consultants were asked whether the subject could be post-verbal in this sentence, the answer was no, whereas in environments in which focus does not play a role, VS is the default word order in passive sentences (Rocha 2011).

Example (54) is a case of focus on the subject of a cleft sentence, similar to the ones seen in Section 2.1, but this time in a non *wh*-environment.

2.4 Focused Postpositional Phrases

Sentences (60) and (62) exemplify focused PPs: “with the white man’s arrows” and “with arrows with hooks”, respectively. Example (61) is a

clear case of subject focus, used between the two focused PPs to introduce a new argument, “big arrows”.

- (59) *a-tykiri, yjxa Ø-na-oky-t bypan pita pip*
there-when we 3-DECL-kill-NFUT weapon real in
tyym him
then game
‘Then, we killed game with bows and arrows.’

- (60) *opok bypan pip i-a-oky padni*
white man weapon in 3-PASS-kill NEG
keerep him
in.the.old.days game
‘One did not kill WITH THE WHITE MAN’S WEAPONS in
the old days.’

- (61) *bokore Ø-na-oky-t keerep him*
big.arrows 3-DECL-kill-NFUT in.the.old.days game
‘BIG ARROWS killed game in the old days.’

- (62) *napisỹ pip i-m-kikĩ popi-t*
arrows.with.hooks in 3-CAUS-cry die.PL-OBL

Ø-na-m-'a-t *keerep* *him*

3-HABIT-CAUS-do-NFUT in.the.old.days game

‘WITH ARROWS WITH HOOKS the game was made to die
crying in the old days.’

(63) *Ø-naka-'a* *ta'ã-t* *y-'it* *keerep*

3-DECL-say DIR.EVID-NFUT 1-father in.the.old.days

‘My father told me in the old days.’

In all of the cases discussed in this section, the focused phrase is moved to the beginning of the sentence, to a clause-internal left periphery position. Storto 1999 labels Spec,CP and Storto 2010 labels Spec,FocusP.

3. Topic phenomena in main clauses

3.1 Discourse topic

C. Everett (ms) claimed that Karitiana has a left peripheral discourse topic position to which subjects move in default declarative clauses, which he assumes have subject-initial constituent orders – SVO and SV. We will show that this sentence-initial topic position does not exist in the language,

because although the default word order of transitive sentences is SVO, it is VS for intransitives. If a topic position existed for subjects, we would expect the default order to be SVO for transitive and SV for intransitive sentences. However, in Karitiana, SV word order is not the default for intransitives, but occurs in marked environments (focused or fronted quantified subjects, passives, imperatives, etc.).¹¹

Considerable word order variation can be found in dialogues and in narratives. Table 1 shows the distribution of different word orders in 66 sentences from dialogues (45 complete, that is, with O and V, at least, if transitive, and S and V if intransitive) and 296 sentences from the ritual narrative *Osipo* (195 complete).

Table 1. Word order in dialogues and a narrative

SVO (66)	47 unmarked declaratives; 16 declarative copular sentences; 1 negative imperative; 1 affirmative imperative; 1 negative
OSV (7)	4 OFC (2 <i>wh</i> - and 2 answers to <i>wh</i> -); 2 non-OFCs with objects quantified by ‘only’; 1 declarative (parallelism with previous sentence)
OV (5)	1 OFC (<i>wh</i> -); 4 non-OFC (2 with nominalized VPs and 2 with objects followed by <i>pitat</i> ‘really’)
VO (16)	2 imperative, 14 habitual
OVS (9)	8 declarative OFC; 1 habitual with an ideophone as the object
VOS (2)	preceded by an adjunct

¹¹ As an anonymous reviewer suggested, it is possible to say that the left-edge topic position is correct for ergative subjects exclusively, since AVO is the unmarked word order in transitive sentences.

VSO (5)	often preceded by an adjunct, or the subject has a different referent than the subject of the previous sentence; 1 assertative
VS (103)	69 unmarked declaratives; 6 adjunct- <i>wh</i> ; 7 polar questions; 4 answers to adjunct- <i>wh</i> , preceded by the adjunct; 2 followed by adjunct PP; 3 negative; 12 negative passives
SV (25)	1 repetition by hearer of speaker's VS sentence; 1 answer to subject- <i>wh</i> ; 1 SV followed by ' <i>horo</i> ', a tag question perhaps marking S focus; 2 passives, 1 imperative, 1 emphatic subject, 2 subjects with 'only', 5 followed by a PP or adverb

In the narrative analyzed in this paper, there were 195 complete sentences, distributed as follows: 92 complete transitive sentences and 103 intransitive. Out of the 45 complete sentences found in dialogues, 19 were transitive and 26 intransitive. Exceptions from the most common word order in transitive sentences (SVO) can be explained by nominalization of the VP, object focus or quantification of the object. Sentences with VO word order are either habitual or imperative, that is, sentences in which the subject is already known (a second person for imperatives and a generic third person for habituals) and for that reason it is omitted. Verb-initial declarative transitive sentences are rare, and occur mostly when an adjunct precedes them.

The most common constituent order in intransitive sentences is VS. Exceptions from this order are marked forms in which the subject is focused, emphasized, quantified or moved to the front for other reasons.

There are four cases of non-OFC declarative sentence with OSV or OV word-order in which the object was quantified by ‘only’ or ‘really’. It seems reasonable to assume that these quantified noun phrases are fronted to a different left-periphery position than focused phrases in the language because: (1) there are no other verb-final main sentences in Karitiana, which suggests these are SVO sentences in which the quantified object has moved; (2) they do not trigger the usual object focus morphology on the verb. Out of the more marked cases of SV word-order, two were cases of subjects quantified by ‘only’.

From the facts reported above, we conclude that SVO and VS are the default or unmarked word orders in Karitiana. The fact that Karitiana is an ergative language may explain why subjects of intransitive sentences occur in the same post-verbal position as objects, but it is still unclear why ergative subjects move to preverbal position. That is, why would the left-edge topic position, suggested by C. Everett (2006) for all subjects, work only for ergative arguments?

3.2 Shifted Topic

There is a special kind of topic meaning conveyed in Karitiana by a repetition of the subject at the end of a sentence. This process never affects objects and can be said to carry a special notion of “shifted topic”, besides the usual meaning of “aboutness” that has been described in the literature on topic (Erteschik-Shir 2007: 19). The repetition of the subject often occurs when the subject is not the topic of the previous utterance - a “shifted topic” or “switch topic”, as described in the literature for Catalan (Vallduvi 1992). The subject may be pronominal or not, and it may be repeated more than once if a constituent follows a repetition.

- (64) [Jonso-t yj-amy tykiri], yjxa Ø-naka-'obm-Ø
 woman-OBL we-receive when we 3-DECL-pierce-NFUT
 gop
 wasp
 ‘When we do receive a woman, we pierce the wasps’ nest.’

- (65) yn i-'obm pitadn-i yn gop
 I 3-pierce really-NEG I (TOP) wasp
 ‘As for myself, I did not pierce wasps’ nests a lot.’

- (66) Ø-pyry-kii-dn taso gopo 'obm-on tyym,
 3-ASSERT-COP.PL-NFUT man wasp pierce-ADVZR then

dez gopo 'obm-on-o, cinco gopo
 ten wasp pierce-ADVZR-EMPH five wasp
'obm-on-o...
 pierce-ADVZR-EMPH

‘There are real wasp piercers, ten times wasp piercers, five times
 wasp piercers...’

- (67) [*quatro myry'in*] *yn Ø-naka-'obm-Ø yn gop*
 four only I 3-DECL-peirce-NFUT I(TOP) wasp
 ‘As for myself, only four (times) have I pierced wasps.’

The excerpt in sentences (64)-(67) is a summary description of the ritual in which the storyteller explains the goals of the male initiation ritual in which a young man has to invade (‘pierce’) a wasps’ nest when he is ready to marry (‘receive a woman’). He has to repeat the ritual many times until he becomes ready to marry, as sentences (66) and (67) describe. In (64), the subject of the sentence is the first person inclusive pronoun *yjxa*, ‘we’ (this pronoun is obligatorily cliticized to the verb as *yj-* in the adverbial subordinate clause), and in (65), where the subject is repeated, it is the first person pronoun *yn* ‘I’. Sentence (66) has a third person subject (*taso gopo' obmon* ‘wasp piercers’), and sentence (67), with a repeated subject, has a first person pronoun in subject position. Note that the repeated pronouns in (65) and (67) have

already been introduced in the sentence as subjects. The function of the repeated subject is to emphasize the information that the sentence is about the referent of this subject, that is, that it is the topic of the sentence. This topic, however, is not linked to a previous topic - it is not in a topic-chaining configuration.

Example (71) below cannot be analyzed as a case of topic shift because the repeated first person subject is the subject of the previous full sentence (69). However, sentences (69) and (71) are separated by the focused constituent (70) *pikom myry'int*, which occurred as a phonologically independent utterance and could be considered an interruption in the first person topic chaining from (69) to (71). The function of subject repetition in this case is to resume the interrupted topic chain. This function is similar to topic shifting in that in both cases the attention of the hearer is directed to a certain entity (either a non-topic, as in topic shifts, or a topic chain that has been interrupted).¹²

- (68) [yn-ty y-'iti hadna tyym] yn Ø-naka-m-'a
 I-OBL 1-father word at I 3-DECL-CAUS-do
 ta'ã-t¹³ osiip

¹² We thank an anonymous reviewer for this idea.

¹³ The marker of direct evidentiality, used when the speaker has witnessed the event, is the auxiliary *ta'ã*. There is another auxiliary - *saryt* - making indirect evidentiality, and it often occurs in mythological narratives and dialogues.

DIR.EVID-NFUT *osiip*

‘(With) my father’s word (directed) to me, I did the *osiip*.’

(69) *a-tykiri, yn Ø-na-oky pymbyra-t kinda*

there-when I 3-DECL-kill a.little-NFUT thing

[*ka y-’a tykat tyym*]

this I-do IMPF at

‘Because of this, I kill a little bit of game until today.’

(70) *pikom myry’int*

monkey only

‘Only monkeys.’

(71) *yn ipopi padni him ondyt yn*

I 3-kill.PL NEG game big I(TOP)

‘As for myself, I do not kill big game.’

This hypothesis still has to be verified, but it seems to us that whenever subject repetition occurs there is either a shifted topic being repeated or a resumed topic. The latter occurs when there is an intervening focused element between the repeated subject and the subject of the preceding sentence.

4. The syntax and information structure of subordination in Karitiana

4.1 The syntax of subordination

In this section we deal in more detail with the syntax of subordination in the language in order to be able to discuss information structure in such environments. We have seen in Section 1.2 that subordinate clauses are necessarily verb-final. Whether these clauses are OSV or SOV depends on syntactic and pragmatic factors. Storto (2012) describes three types of embedded clauses in Karitiana - adverbial, relative and “complement” clauses - showing that they have the following properties.

Adverbial subordinate clauses are adjunct modifiers of the matrix clause. They may occur in SOV or OSV word orders without any special use of morphology on the verb or the NPs. They display subordinators that have aspectual semantics as in (72-74), in which simultaneity, precedence and posteriority are exemplified and they have verb-subordinator order without exception.¹⁴

¹⁴ Storto (1999) has shown that adjuncts such as adverbs and PPs preferentially occur in sentence-initial position in declarative sentences. Adjunct clauses follow that pattern, occurring before the main clause. Their distribution, however, is not as free as that of adverbs and PPs. The latter can occur sentence-initially, sentence-finally, and between V and O in an SVO declarative. In such sentences, however, adverbial clauses cannot occur between V and O.

- (72) [*São Paulo pip y-otam tykiri*] \emptyset -*naka-pop- \emptyset* *Maria*
 São Paulo in I-arrive when 3-DECL-die-NFUT *Maria*
 ‘When I arrived in São Paulo, Maria died.’
- (73) [*São Paulo pip y-otam kit*] \emptyset -*naka-pop- \emptyset* *Maria*
 São Paulo in I-arrive before 3-DECL-die-NFUT *Maria*
 ‘Before I arrived in São Paulo, Maria died.’
- (74) [*São Paulo pip y-otam byyk*] \emptyset -*naka-pop- \emptyset* *Maria*
 São Paulo in I-arrive after 3-DECL-die-NFUT *Maria*
 ‘After I arrived in São Paulo, Maria died.’

A crucial aspect of adverbial subordinate clauses that has already been mentioned in Section 1.2.1 is that their constituent order may be either OSV or SOV.¹⁵ The former is typically used in colloquial sentences whereas SOV is used in a more formal and archaic style found in myths and other types of traditional narratives. We consider that the variation between the two possible word orders does not have to be explained syntactically because it is motivated by stylistic factors: OSV is the unmarked word-order in all subordinates (with the arboreal structure given

¹⁵ With pronominal arguments, there is an obligatory cliticization of the closer pronoun on the verb.

in Figure 1) and SOV is an option identified as old fashioned. In relative clauses, however, word order variation is clearly syntactically-driven.

Relative clauses do not feature a subordinator, and have the relativized argument - the so-called head or pivot of the relative - in clause-initial position. That is, when relatives are SOV, the subject is the head as in (75) and when they are OSV, the object is the head as in (76). Additionally, in the latter there is an obligatory verb prefix *ti-* that marks that order as special.

(75) *yn (∅-na-aka-t) i-so'oot-∅ [taso*
 I 3-DECL-COP-NFUT PART-see-ABS.COP.AGR man
ōwã mĩ]-ty
 child hit-OBL
 'I saw the man who hit the child.'

(76) *yn (∅-na-aka-t) i-so'oot-∅ [ōwã*
 I 3-DECL-COP-NFUT PART-see-ABS.COP.AGR child
taso ti-mĩ]-ty
 man OFC-hit-OBL
 'I saw the child whom the man hit.'

As has been mentioned in Section 1.2.3, Storto (1999) points out that relative clauses in Karitiana are head-internal because the case marked on the fronted head of the relative is oblique (with the suffix *-ty* as in (32)) when that noun phrase is the oblique argument of the subordinate verb. Besides, the relativized noun phrase (whether subject, direct object, or indirect object) is always clause-initial in relative clauses, as it is in any construction involving focus movement (*wh*-sentences and answers) because *wh*-movement is the same clause-internal fronting movement undertaken by the head of a relative. Additional evidence presented for that analysis, besides the constituent order, is the presence of an obligatory prefix *ti-* on the verb which also occurs in object focus constructions and clefts.

“Complement” clauses are marked by the oblique suffix *-ty* because they are non-obligatory objects of a class of intransitive psychological verbs (Storto & Rocha, to appear) and they may be characterized structurally as either adverbial or relative clauses.

- (77) *y-py-pyting-yn yn [him pisyp Inácio opĩ]-ty*
 1-ASSERT-want-NFUT I game meat Inácio cut-OBL
 ‘I want that Inácio cuts the meat.’

When the OSV word order is possible without the object focus morphology, as in (81), “complement” clauses are analyzed as adverbial clauses, whereas when OSV requires object focus morphology as in (79), they are analyzed as relatives.

- (78) *y-py-so 'oot-yn yn [taso ðwã mĩ]-ty*
 1-ASSERT-see-NFUT I man child hit-OBL
 ‘I saw the man who hit the child.’
 ‘I saw that THE MAN hit the child.’

- (79) *y-py-so 'oot-yn yn [ðwã taso ti-mĩ]-ty*
 1-ASSERT-see-NFUT I child man OFC-hit-OBL
 ‘I saw the child whom the man hit.’
 ‘I saw that the man hit THE CHILD.’

“Complement” clauses, therefore, do not constitute a third type of embedded clause structurally. They can be adverbial clauses or relative clauses.

In the next sections we must try to explain the syntactic and semantic similarities between relative clauses, focus and *wh*-sentences. We have already mentioned that the kind of movement to the front of the clause undertaken by *wh*-phrases is the same as that of relative clause head

phrases. One question that must be addressed is how the pivot of a relative clause can be marked as focused (with the OFC prefix *ti-*) if these noun phrases seem to be presupposed and definite cross-linguistically. We believe that they are not syntactically definite or indefinite, but phrases headed by bare nouns, whose number and definiteness value, or meaning is given by the context. Evidence that Karitiana is a bare noun language was given by Müller, Storto & Coutinho-Silva (2006) and Storto & Thomas (2012). One possible semantic explanation for the isomorphism between matrix object focus constructions and relatives is that the head noun phrase of a relative is focused because it is the most “newsworthy” constituent inside the clause (in the sense of Mithun 1992), whether or not it conveys new contextual information.

4.2 On the origins of the focus construction

4.2.1 The origin of the focus morpheme *a-*

Diachronically, we know that the declarative object focus morpheme *a-* is derived from the passive prefix *a-* via grammaticalization because synchronically they are homophonous in Karitiana (Storto 1999) and because the cognate of the Karitiana passive is reconstructed in Proto-Tupi (Rodrigues & Cabral 2012) as an intransitivizing reflexive prefix **we-*. The change **we-* > *a-* can be accounted for, at least in what concerns the vowels involved, by a regular sound change. Proto-Arikém (PA), the

mother language of the Arikém branch of Tupian languages, of which Karitiana is the only surviving representative, has undergone a counterclockwise vowel shift from Proto-Tupi (PT) that gave origin to PA */a/ from PT */e/ (Rodrigues 1986, Storto & Baldi 1994, Storto & Demolin to appear). In other Tupian branches the reflex of PT */e/ remains /e/: there are middle and/or reflexive prefixes which contain the vowel *e*, such as Mawé (reflexive *we-*, middle *to-/he-*), Aweti (*e-*), Tupi-Guarani (*je-*), Munduruku (middle *če-* ~ *je-*, reflexive *we-*), Juruna (*e-* ~ *-j*) (Rodrigues & Cabral 2012) and Tupari (*e-* as an intransitivizing prefix in Mekéns (Galúcio 2001), and as a reflexive and middle prefix in Wayoró and other Tupari languages (Nogueira 2010)). In Karo, the sole representative of the Ramarama family, there is an impersonal passive prefix *pe-* ~ *we-* ~ *be-* (Gabas Júnior 1999). Karo and Karitiana are the only Tupian languages in which the intransitivizing reflexive **we-* prefix of Proto-Tupi has changed function to a passive. In every Tupian branch, the prefix applies exclusively to transitive verbs, regardless of its function.

One possible hypothesis to explain grammaticalization is that the passive morpheme is nominal in category (N) whereas the focus morpheme is functional, and for that reason only the former intransitivizes the transitive verb to which it attaches. Our analysis is that the passive morpheme on a transitive verb occupies the place of the agent, thus intransitivizing it, although the meaning of an agent remains as an intrinsic

part of the meaning of passive voice morphology. For that reason, when the passive in Karitiana is grammaticalized to become a declarative object focus construction, the agent is reactivated as an argument of the verb - a presupposed argument. The patient, which was the only argument of the passive verb, when grammaticalization takes place, becomes the focused argument.

4.2.2 The origin of the focus morpheme *ti-*

The historical development of the non-declarative object focus morpheme *ti-* in Karitiana is less clear, but it seems to be a cognate with the object focus prefix *i-* in Mekéns (Galucio 2001) and with a generalized focus prefix *i-* in Karo (Gabas Júnior 1999). Mekéns and Karo are representatives of two other branches of the Tupian family (Tupari and Ramarama, respectively). The reason why they seem to be cognates, besides the phonological correspondence,¹⁶ is that they occur in exactly the same three syntactic environments in Karitiana and Mekéns - object *wh*-questions, matrix object focus sentences and object relative clauses - and in Karo they occur in main clauses translated as cleft sentences, signalling a fronted absolutive focused phrase.

There are three hypotheses to explain the sources of *ti-*: (1) an antipassive verb prefix; (2) an inverse voice verb prefix and (3) an object

¹⁶ Rodrigues & Cabral (2012) reconstruct PT */i/ corresponding systematically with /i/ in the Arikém, Ramarama and Tupari branches.

nominalization prefix. We will argue that the latter is the most likely explanation, but first we will discuss the evidence for the other two hypotheses.

The first hypothesis was proposed by Storto (1999) because in Mekéns (Tupari, Tupian) there is an object demoting construction (Galúcio 2001, 2002) marked by a prefix homophonous with the object focus construction (OFC) morpheme *i-*. Storto (1999) analysed this object demotion as an antipassive, since the object appeared as oblique in such constructions (84).

Mekéns (Tupari branch, Tupian Family)

(80) *arob=ẽp te te e-i-mi?*

WH=really truly FOC 2-OFC-kill

‘What did you kill again?’

(81) *ẽt te o-i-sop ikãõ*

you FOC 1-OFC-see then

‘It was you that I saw then.’

(82) *isĩ ko pa õt Maoel i-mi*

deer eat FUT I Manoel OFC-kill

‘I will eat the deer that Manoel killed.’

Example (83) shows a Mekéns transitive sentence and (84) shows the corresponding antipassive.

(83) *õt ameko mi-a-t*
I jaguar kill-T.V-PST
‘I killed the jaguar.’

(84) *õt i-mi-a-t ameko-pe*
I AP-kill-T.V-PST jaguar-oblique
‘I have killed (through the jaguar).’

Storto (1999) uses the grammaticalization of the passive morphology *a-* into a declarative object focus morpheme *a-* in Karitiana to suggest a similar source – an antipassive - for the object focus morphology in non-declarative environments. She compares Tupian languages with the Mayan language K’ichee and suggests that the antipassive could have been the origin of the agent focus morpheme in K’ichee as well (Hale & Storto 1997, Storto 1999), given that agent focus in K’ichee and object focus in Tupi are used in the same syntactic environments: *wh*-questions, matrix focus sentences and relatives. A similar intransitivizing (perhaps

antipassive) morpheme may have been the historical origin via grammaticalization of the cognate focus prefixes in Karitiana, Mekéns and Karo. Whether or not such an intransitivizing prefix existed in Proto-Tupi is still unclear. Rodrigues & Cabral (2012) reconstruct two different morphemes to account for the origins of *ti-* in Karitiana: an object nominalization prefix **mi-* restricted to subordinate clauses and a relational prefix (R^2) with two morphologically conditioned allomorphs **i-* (class I) and **t-/*n-* (class II) restricted to matrix clauses. They claim that these are also the origins of two different *i-* prefixes in Mekéns, occurring in embedded and matrix clauses.

The second hypothesis for the source of *ti-* in Karitiana has to do with this relational prefix mentioned above. Storto (2005) hypothesized that the inverse voice described by Payne (1994) for Tupi-Guarani languages (which Rodrigues & Cabral 2012 reconstruct in PT as a relational prefix) is a cognate with the focus prefixes in Karitiana, Mekéns and Karo, and that they may all be viewed synchronically as inverse voice morphology, since they involve object-initial word orders. In Karo, this inverse construction seems to have been extended to include focused

subjects of intransitive verbs¹⁷ – that is, it became a construction used to focus all absolutive arguments as in (85)-(86).¹⁸

(85) *agoaʔpət i-ket*

shaman FOC-sleep

‘It was the shaman that slept.’

(86) *wayo gāp ar i-ʔo-p*

crocodile delicious 3SG FOC-eat-IND2

‘It was a delicious crocodile that he ate.’

The defective morphology of sentences with a focused phrase in Karo and the absence of agreement in Mekéns object focus constructions lead us to examine yet a third hypothesis to account for the origin of the focus constructions in these languages: subordinate clauses. It is possible that the morphemes involved in these focus sentences started originally as object nominalizers of subordinate clauses in an earlier stage in the history of Tupian languages (marked by the PT **mi* reconstructed by Rodrigues & Cabral 2012) and then became grammaticalized as object focus markers

¹⁷ When the subject of an intransitive phrase is focused in Karo, there is no mood morphology on the verb.

¹⁸ An ergative argument when focused in Karo must occur in a cleft construction in which the focus marker *i-* is prefixed to the auxiliary (changing predictably to a palatal approximant when prefixed to a vowel-initial auxiliary):

maʔwír y-e-t māygāra rob-a
man FOC-AUX-IND1 snake see-gerund
‘It was the man that saw the snake.’

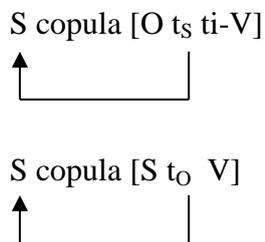
when these nominalized subordinate clauses were reanalyzed as relatives, clefts and main clauses. In Karo, one could say that main clauses marked by this focus prefix still show signs of having arisen from a subordinate structure, because their verbs lack the usual person and mood morphology when intransitive subjects are focused as in (85). In Mekéns, they lack tense and aspect but they show person agreement (compare the OFC (81) and the regular (83)). Both in Mekéns (81) and in Karitiana (Storto 1999), the main clause object focus sentences have anti-agreement, that is, agreement with the transitive subject, in a language in which the verb usually agrees with the absolutive argument. This is expected if the historical origin of these clauses was a nominalized subordinate clause occurring as the complement of a copula verb in a cleft, because such a clause could be intransitive.¹⁹ In Karitiana, grammaticalization is complete in main clause non-declarative focus constructions, because we find tense and agreement morphology on the verb, but the cleft origin of such clauses is visible in the presence of the *ti-* prefix, which is obligatory as well in object *wh*-clefts and in object relatives. In Mekéns and Karo the verb morphology is reduced in focus sentences, suggesting that they may either still be clefts, in which the copula has been left out or an intermediate structure between a cleft and a regular main clause. Although there is no proof that nominalizations or subordinate clauses are the source of non-

¹⁹ But, synchronically main clause focus constructions are transitive. For this reason Storto (2005) describes a case-split system in Karitiana, Mekéns and Karo in main clause inverse (focus) constructions.

declarative focus constructions in Karitiana, the evidence seems to point to this as the best hypothesis so far. In the paragraphs below the structure of clefts in Karitiana is discussed and related to the meaning of focus.

In Karitiana clefts, the complement of the copular verb is a non-finite clause that is obligatorily nominalized (by the participial prefix *i-* as in (40) or by the instrumental nominalizer *-pa* as in (3)). Therefore, clefts are bi-clausal sentences in which the subject of the copular verb originates inside the clausal complement either as a subject or as an object of the subordinate verb. The noun phrase that occurs before the copular verb in cleft sentences moves out of the subordinate clause leaving behind an [OV] or [SV] nominalized clause. This is schematized in Figure 2 below. We know for sure that there is movement out of the subordinate clause because the OFC prefix *ti-* is obligatory when the object is fronted as was shown in (79).

Figure 2. The structure of Karitiana cleft sentences



It seems reasonable to assume that the arguments of the clausal complements of clefts move to a focus position because cleft sentences have focused subjects, as is the case cross-linguistically. Besides, we have seen that the OFC morpheme *ti-* is required in a cleft whose subject started out as the object of its clausal complement. Finally, since clefts can be used as answers to *wh*-questions, we have to assume that the subject position (before the copula) in a cleft is focused. Copular sentences in Karitiana may have the same structure as clefts because they can be used as answers to *wh*-questions (42) and they also display nominalization of their clausal complement, as well as absolutive copular agreement. The difference between clefts and copular sentences is that the clausal complement of a copular verb in the latter is a small clause (headed by N, A or intransitive Vs, and never by transitive verbs) and not a full clause (Storto 2010).

4.3 Focus in subordinate clauses from a narrative

Two examples of non-declarative object focus in a subordinate environment taken from the *Osipo* narrative are given in (89) and (90) below. These are non-finite clauses that seem to function as oblique arguments of the finite sentence (87). We can be sure that these clauses are

non-finite because they occur in OSV word-order and with the negation suffix *-ki*, which is limited to non-finite clauses and nouns.

- (87) *otadnamyn-t yn Ø-naka-m- 'y-t yn*
 four-OBL I 3-DECL-CAUS-take-NFUT I (TOP)
gop yn
 wasp I(TOP)
 ‘As for myself, I have taken the wasps four times.’

- (88) *gop sōw-ōrã, gop miemo, gop miemo sypom-p,*
 wasp red-ADVZR wasp wasp two-OBL
gop sow-ōrã sypom-p tyym
 wasp red-ADVZR two-OBL as well
 ‘Red wasps, gop miemo, gop miemo twice, red wasps twice, too.’

- (89) [*gop bisōwōrã yn ti-m- 'y-ki*]-*t*
 wasp I OFC-CAUS-take-NEG-OBL
 ‘My not having taken GOP BISŌWŌRÃ.’

- (90) [*gop bikiip yn ti-m- 'y-ki*]-*t*
 wasp I OFC-CAUS-take-NEG-OBL

‘My not having taken GOP BIKIIP’

- (91) *Ø-naka-'a-t kahyt*
3-DECL-do-NFUT like.this
‘That’s how it was.’

We can be sure that the noun phrases at the left edge of these subordinate clauses are focused because the meaning of new information is present in the context, where various species of wasps are being listed for the first time.

Conclusion

Our hypothesis that *ti-* started out as an object subordinate clause nominalizer in Proto-Tupi which was grammaticalized as an object focus marker in clefts explains why its occurrence is obligatory inside object relatives, *wh*-sentences and main clause object focus sentences in Karitiana. Sincronically, the *ti-* prefix is still present in embedded clauses to mark the extraction of an object to the left periphery of the clause. Sometimes, as in the examples just examined, focus is clearly the motivating factor for this movement. In other cases, such as in relative clauses, focus does not seem to be playing a role, but a syntactic

movement to that same position is still obligatory to disambiguate the relative clause.

Abbreviations

ABS	absolutive	IND1	indicative mood 1
ADVZR	adjectivizer	IND2	indicative mood 2
AGR	agreement	INT	interrogative
AP	antipassive	ITERAT	iterative aspectual clitic
ASSERT	assertative modd	MOT	motion
AUX	auxiliary	NEG	negation
CAUS	causative	NFUT	non-future tense
COP	copula	NMLZR	nominalizer
DECL	declarative mood	OBL	oblique case
DIR	direct	OFC	object focus construction
DOFC	declarative object focus construction	PART	participle (nominalizer)
EMPH	emphatic	PASS	passive
EVID	evidential	PST	past
FOC	focus	PL	plural

FUT	future tense	REDUPL	reduplicant
HABIT	habitual	SG	singular
INCL	inclusive	TOP	topic
IMP	Imperative mood	WH	interrogative content phrase (<i>wh</i> -phrase)
IMPF	imperfective aspectual auxiliary	T.V.	thematic vowel
1,2,3	first, second, third person agreement		

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