

Copular Constructions in Karitiana: A Case Against Case Movement

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Abstract

Copular constructions are used in place of simple declaratives with intransitive verbs in Karitiana (Arikém family, Tupi stock). Our goal is to analyze copular and cleft sentences in the language in search of an explanation to this fact. In order to achieve this goal, it is necessary to discuss predication, agreement, Case movement and focus movement in the language. We start by presenting our analysis of copular and cleft sentences as bi-clausal structures in Karitiana. Next, we go on to discuss absolutive agreement and word-order in verbal paradigms, showing that anti-agreement is limited to object focus constructions. Then, we show that wh-movement of absolutive arguments necessarily require clefting. Finally, we examine possible explanations for the use of copular sentences in place of simple declaratives. Our conclusion is that simple declaratives with intransitive verbs are not syntactically focused, and that, when an intransitive subject must be focused, a copular sentence is used.

1 Copular and cleft sentences in Karitiana

1.1 Copular sentences

We postulate that copular sentences in Karitiana are bi-clausal structures in which the copula *aka* selects a nominalized small-clause as its complement. Copular verbs in the language select complements headed by nouns (as in (1)-(4)), adjectives (as in (5)-(6)) or intransitive verbs (as in (7)-(9)). The descriptive generalization is that the complement of a copular sentence in Karitiana must be a predicate with a single argument. Transitive verbs are ungrammatical in copular sentences, as attested in (10).

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- (1) Copular sentence with nominal predicator (nonfuture tense)
 Byyty Ø-na-aka-t [kinda'o]-t
 papaya 3-decl-cop-nfut fruit-abs.agr.
 'Papaya is a fruit'
- (2) Copular sentence with nominal predicator (nonfuture tense)
 kinda'o Ø-na-aka-t [asyryty]-t
 fruit 3-decl-cop-nfut banana-abs.agr.
 'Banana is a fruit'
- (3) Copular sentence with nominal predicator (nonfuture tense)
 'Ep Ø-na-aka-t [jepỹrỹ]□-t
 tree/wood 3-decl-cop-nfut club-abs.agr.
 'The club is a piece of wood'
- (4) Copular sentence with nominal predicator (future tense)
 Kinda osiito Ø-na-aka-j [kinda'o]-t
 flower 3-decl-cop-fut fruit-abs.agr.
 'The flower will be a fruit'

Adjectives or intransitive verbs occurring as complements of copular sentences must be nominalized by a prefix *i-*, glossed as 'participle' in Storto (1999).

- (5) Copular sentence with adjectival predicator (nonfuture tense)
 Taso Ø-na-aka-t i-se'a-t
 man 3-decl-cop-nfut part-good-abs.agr.
 'The man is good/good-looking'
- (6) Copular sentence with adjectival predicator (future tense)
 Õwã naakaj ise'at 'The child will be beautiful'
- (7) Copular sentence with intransitive verb as predicator (nonfuture tense)
 Taso Ø-na-aka-t i-kat-Ø
 man 3-decl-cop-nfut part-sleep-abs.agr.
 'The man is sleeping/slept'
- (8) Copular sentence with intransitive verb as predicator (future tense)
 Taso Ø-na-aka-j i-kat-Ø
 man 3-decl-cop-fut part-sleep-abs.agr.
 'The man will sleep'
- (9) Copular sentence (nonfuture tense, 1st. and 2nd.person subjects)
 Yn/an Ø-na-aka-t i-kat-Ø
 I/you 3-decl-cop-nfut part-sleep-abs.agr.
 'I/you slept'

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- (10) Ungrammaticality of copular sentences with transitive verbs
 *Taso Ø-na-aka-t i-'y-t (ta-ti'y)
 man 3-decl-cop-nfut part-eat-abs.agr. 3anaph-food
 'The man ate (his food)'
- (11) Passivized transitive verb 'to eat' in copular construction
 Taso Ø-na-aka-t i-a-'y-t
 man 3-decl-cop-nfut part-pass-eat-abs.agr.
 'The man was eaten'
- (12) Intransitive verb 'to eat' in copular construction
 Taso Ø-na-aka-t i-pyt'y-t
 man 3-decl-cop-nfut part-eat-abs.agr.
 'The man ate'

Given that a nominal, adjectival or verbal head is the predicator in a copular sentence - that is, the head that semantically selects the subject of the copula - it makes sense to postulate a bi-clausal structure for such sentences in which the subject of the lower clause moves to a pre-copular position in the matrix clause. We will see in sections 1.2 and 3, that there is indeed strong morpho-syntactic evidence of movement of an argument from inside the copular complement to pre-copular position: the presence of a suffix *-t/Ø*, labelled 'absolute agreement' by Storto (2008).

Syntactically, the structure of copular sentences is as in (13a):

- (13a) Taso_i naakat [_{NOM} [_{SC} t_i X]] where X = N, A or intransitive V

The nominalized (NOM) small-clause (SC) is suffixed by *-t/Ø*, a morpheme that was incorrectly analyzed by Storto 1999 as non-future tense. Everett (2006) points that out and suggests an analysis in terms of 'copular agreement'. Storto (2008) glosses it as 'absolute copular agreement', showing that it is obligatory in copular sentences, cleft sentences and non-future wh-sentences whenever an absolute argument - intransitive subject or object - is extracted out of the complement of the copula. For an analysis of copular sentences as bi-clausal structures cross-linguistically, we refer the reader to Couquaux (1981). A definitive analysis of *-t/Ø*, however, is still to be given. That is, it is not clear why a functional head would be present in a small clause. The problem is not restricted to Karitiana. Bowers (1993), for instance, suggests that small clauses must have a functional head responsible for the predication relationship between the predicate and its subject:

- (13b)
- ```

 PredP
 / \
 Argument Pred'
 / \
 Pred Predicate

```

This functional head could be an instance of what Hale & Keyser (2002) label  $\delta$ , that is, the functional head meaning degree, present in adjectival small clauses or what Corver (2006) analyzes as degree (Deg) in Dutch, when discussing a phenomenon traditionally called “proleptic agreement”. It seems to be correct to say that this morpheme in Karitiana and in Dutch is a functional head occurring in a phrase from which its sole argument is extracted. In section 4, after discussing phrase structure, Case and agreement in the language, we propose a more detailed structure for copular sentences than that in (13a), taking this morpheme into account.

In case it is desirable to add an object to a copular sentence, it will appear after the clausal complement, as an oblique argument (marked by the *-ty* postposition in (15)). This is the oblique postposition that marks indirect objects in the bi-transitive verb ‘to give’. Additional objects of intransitive verbs in Karitiana can also be marked by this same postposition:

- (14) Copular sentence with intransitive verb  
 Taso                      Ø-na-aka-t                      i-esyma-t  
 man                      3-decl-cop-nfut                      part-sneeze-abs.agr.  
 ‘The man sneezed’
- (15) Taso naakat iesymat gety                      ‘The man has sneezed blood’

It is important to point out that the copula may always be omitted in non-future tenses, that is, in those sentences in which its form is *naakat*. Everett (2006) considers that another sentential type different from the copular construction is at play in those cases.

Now let us examine Case and agreement properties of copular sentences. The copula does not agree in person with its subject, as attested in sentences (5)-(6), in which the subject is first and second person, and the copula has third person agreement. A copular sentence invariably agrees with its object, that is, the complement noun or the nominalized small-clause, an invariable third person. We will see, in part 2, that this agreement pattern is the rule in Karitiana verbal paradigms, because in declarative, assertative or imperative moods, verbs agree with their object if transitive or with their subject if intransitive: an absolutive pattern of agreement.

One could suggest that the subject of the small clause moves to subject position of the copular sentence to check Case. However, case is checked in situ in the language. We will see in section 2 that Karitiana is an ergative language with obligatory verb movement to a second structural position. The same intransitive verbs that occur in copula constructions show up in simple declarative VS sentences with absolutive subject agreement on the verb, suggesting that absolutive Case is licensed post-verbally. Transitive declaratives, as well, may occur in VOS and VSO word-orders when arguments are topic (old information), suggesting that ergative Case is also licensed post-verbally. OVS word-orders occur when the object is focused, and



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‘It is at Manoel that the women will laugh’

This type of cleft sentence can be used as an answer to a wh-question, in the same context in which a declarative focus sentence would be used. The default way of answering a wh-question is in a declarative focus construction as in (22):

- (20) Object wh-question with verb ‘to kill’:

Morã-mon      taso      ti-i-oky-t?  
Wh-cop          man      OFC-part-kill-abs.agr  
‘What is it that the man killed?’

- (21) Cleft answer to wh-question with verb ‘to kill’:

Pikom          (Ø-na-aka-t)      taso      ti-i-oky-t  
monkey      3-decl-cop-nfut      man      OFC-part-kill-abs.agr.  
‘It is the monkey that the man killed’

- (22) DOFC used as answer to wh-question with verb ‘to kill’:

Pikom          a-ta-oky-t                      taso  
monkey      DOFC-decl-kill-nfut      man  
‘The man killed THE MONKEY’

Storto (1999) argues in favor of the hypothesis that in cleft sentences, as in copular sentences, the *i-* participle morpheme is also present, nominalizing the verb. In (18)-(21), the morpheme in question is not easily identifiable since it fuses with the object focus prefix *ti-* (*ti+i+V*), but it can be seen independently in the intransitive subject wh-cleft below:

- (23) Wh-cleft of an intransitive subject

Morã          i-aka-j                      i-pon?  
wh-          3-cop-fut                      part-shoot  
‘Who is it that will shoot?’

- (24) Answer: Taso naakaj ipon                      ‘The man is going to shoot’

Note that a wh-sentence, by being non-declarative, will have a third person agreement prefix *i-*, instead of the zero morpheme present in declarative paradigms, seen in (24). In section 2 we will see that imperatives also have *i-* as their third person agreement marker.

In cleft sentences the head of the complement clause is usually nominalized by *i-* but this marker of participle does not occur when another type of nominalizer is used, as in (25), where we have the instrumental or locative nominalizer *-pa*:

- (25) Cleft of a nominalized transitive verb with an incorporated object:

Tepa      Ø-na-aka-t              [[byrytik      sokõ’ĩ]-pa]-t  
vine      3-decl-cop-nfut      torch              tie.up-nomlZR-abs.agr.  
‘Vines are the binders of torches’

## 2 Morphological ergativity, absolutive agreement and word-order

### 2.1 Finite sentences

Finite declarative sentences in Karitiana occur in 4 possible word orders: SVO, OVS, VSO and VOS. Embedded clauses, which are non-finite, occur in verb-final word orders exclusively: SOV and OSV. Verb-second word orders (SVO and OVS) involve focus movement of an argument to clause-initial position. This movement is obligatory in *wh*-questions, answers to *wh*-questions, as we will see in sections 3, and clefts (as shown in 1.2).

Storto (1999) argues that Karitiana is a verb-final language in which verbs obligatorily raise to a second structural position (though V to I to C head movement) to check features such as tense and agreement. Verb-initial word orders (VOS and VSO) are best analyzed as sentences in which the verb moves to the same “verb-second” focus position as in SVO and OVS sentences, but no argument movement occurs, since in these orders arguments are topic (old information). We will propose, in section 4, that the obligatory verb-second position to which the verb moves is not C, but focus (Foc).

Indeed, complementizers do not seem to exist in Karitiana. Embedded sentences project one functional head to which the verb raises, but this functional head is clause-final and has aspectual semantics. Since some of the same sentence-final aspectual heads present in embedded clauses also surface in finite matrix sentences, the best analysis of the facts is that embedded clauses are truncated versions of matrix clauses (Storto 1999, 2003, 2009a).

#### 2.1.1 Declaratives

Declarative sentences constitute the default sentential type used in the language. However, the gloss “declarative” is not entirely appropriate, given that assertative sentences are also used in declarations. We will see in section 2.1.2 that a particular context in which the assertative mood is used and the declarative is not is in affirmative answers to yes-no questions (Landin 1984, Storto 1999). Until we have a better understanding of the semantics and pragmatics of these morphemes, however, it is not necessary to re-label them, since any alternative glosses such as indicative or realis used for declaratives would suffer from the same inadequacy.

In the declarative paradigms below, first person (*y-*, *yta-*, *yj-*) and second person (*a-*, *aj-*) agreement prefixes precede the mood allomorph *ta(ka)-*. Third person agreement in declarative clauses is  $\emptyset$ , and the mood allomorph used in that case is *na(ka)-*. The morphology pattern is the same for future (*-j/-i*) or non-future (*-t/-\emptyset*) tenses. Person agreement on the verb reflects the features of absolutive arguments (objects or subjects of intransitive verbs):

- (26) Transitive verb *ahoj* (nonfuture tense)
- |                 |                                           |
|-----------------|-------------------------------------------|
| Yn naahoj ðwã   | ‘I laughed at the child’                  |
| An naahoj ðwã   | ‘You laughed at the child’                |
| I naahoj ðwã    | ‘He laughed at the child’                 |
| Yta naahoj ðwã  | ‘We (excluding you) laughed at the child’ |
| Yjxa naahoj ðwã | ‘We laughed at the child’                 |
| Ajxa naahoj ðwã | ‘You laughed at the child’                |
| I naahoj ðwã    | ‘They laughed at the child’               |
- (27) Transitive verb *ahoj* (future tense)
- |                  |                                              |
|------------------|----------------------------------------------|
| Yn naahoji ðwã   | ‘I will laugh at the child’                  |
| An naahoji ðwã   | ‘You will laugh at the child’                |
| I naahoji ðwã    | ‘She will laugh at the child’                |
| Yta naahoji ðwã  | ‘We (excluding you) will laugh at the child’ |
| Yjxa naahoji ðwã | ‘We will laugh at the child’                 |
| Ajxa naahoji ðwã | ‘You will laugh at the child’                |
| I naahoji ðwã    | ‘They will laugh at the child’               |
- (28) Transitive verb *ahoj* with pronominal arguments (nonfuture/future tenses)
- |                    |                                                |
|--------------------|------------------------------------------------|
| Yn ytaahoj/i yn    | ‘I laughed/will laugh at myself’               |
| Yn ataahoj/i an    | ‘I laughed/will laugh at you’                  |
| Yn naahoj/i i      | ‘I laughed/will laugh at him’                  |
| Yn ytaaahoj/i yta  | ‘I laughed/will laugh at ourselves(excl. you)’ |
| Yn yjtaahoj/i yjxa | ‘I laughed/will laugh at ourselves’            |
| Yn ajtaahoj/i ajxa | ‘I laughed/will laugh at you’                  |
| Yn naaahoj/i i     | ‘I laughed/will laugh at them’                 |
- (29) Intransitive verb *ahy* (nonfuture/future tenses)
- |                 |                                       |
|-----------------|---------------------------------------|
| Ytaahyt/j yn    | ‘I drank/will drink’                  |
| Ataahyt/j an    | ‘You drank/will drink’                |
| Naahyt/j i/taso | ‘He/the man drank/will drink’         |
| Ytaahyt/j yta   | ‘We (excluding you) drank/will drink’ |
| Yjtaahyt/j yjxa | ‘We drank/will drink’                 |
| Ajtaahyt/j ajxa | ‘You drank/will drink’                |
| Naahyt/j i/taso | ‘They/ the men drank/will drink’      |

The allomorphy of these examples requires a brief explanation. The first person exclusive morpheme *yta-* predictably fuses with the declarative prefix *ta(ka)-*, yielding *yta(ka)-* instead of the expected *yta-ta(ka)-*. The syllable *ka-* occurs as an augment of the declarative morpheme whenever the verb root has initial stress, as in the examples below. Tense allomorphy is conditioned by the syllabic pattern of roots: verb roots ending in vowels condition the occurrence of the consonantal allomorphs.

The verb paradigm given in (30) has a suppletive root used exclusively for plural events (*hot*) and another used for singular events (*tat*):

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- (30) Intransitive suppletive verb **tat/hot** (nonfuture and future tense)
- |                           |                     |
|---------------------------|---------------------|
| Ytakatat/ytakatari yn     | ‘I went/will go’    |
| Atakatat/atakatari an     | ‘You went/will go’  |
| Nakatat/nakatari i        | ‘He went/will go’   |
| Yjtakahot/yjtakahori yjxa | ‘We went/will go’   |
| Ajtakahot/ajtakahori ajxa | ‘You went/will go’  |
| Nakahot/nakahori i        | ‘They went/will go’ |

With a transitive suppletive verb, as with other transitives, agreement reflects the person features of objects. One might want to argue as well that suppletive roots are selected based on the number features of their objects. Although more research is needed to understand the semantics and pragmatics of suppletive verb roots, since speakers’ judgements vary, there is no reason to believe that they behave differently from reduplicated verb roots in the language. These roots have a plural reading when reduplicated and a number neutral reading otherwise, as shown by Mendes-Sanchez & Muller (2008).

- (31) Transitive suppletive verb **oky/popi**
- |                  |                                                 |
|------------------|-------------------------------------------------|
| Yn naokyt pikom  | ‘I killed one monkey/monkeys’ <sup>1</sup>      |
| Yn napopit pikom | ‘I killed (the) monkeys’ (*I killed one monkey) |

The bitransitive verb **hit** ‘to give’ agrees with its direct object, which is the goal, since the theme is marked by the oblique postposition **-ty**:

- (32) Verb ‘to give’:
- |                                     |                   |         |              |
|-------------------------------------|-------------------|---------|--------------|
| Yn                                  | aj-taka-hit-Ø     | ajxa    | boet-ety     |
| I                                   | 2p-decl-give-nfut | you(pl) | necklace-obl |
| ‘I gave you a necklace’ (S V DO IO) |                   |         |              |

### 2.1.2. Assertatives

In the assertative mood we have exactly the same agreement pattern as in declarative sentences. What changes in verbs inflected with the assertative mood is the morphology for non-future tense: **-n/(v)n**.

- (33) Intransitive verb **ahy** (non-future tense)
- |                 |                            |
|-----------------|----------------------------|
| Ypyrahydn yn    | ‘I drank’                  |
| Apyrahydn an    | ‘You drank’                |
| Pyrahydn i/taso | ‘She/the man drank’        |
| Ytapyrahydn yta | ‘We (excluding you) drank’ |
| Yjpyrahydn yjxa | ‘We drank’                 |
| Ajpyrahydn ajxa | ‘You drank’                |
| Pyrahydn i/taso | ‘They/the men drank’       |

<sup>1</sup> All speakers limit the use of the root **popi** to plural events. Some speakers use **oky** ambiguously for singular and plural events, whereas others use it limited to singular events.

- (34) Transitive verb *ahoj* (non-future tense)
- |                  |                                           |
|------------------|-------------------------------------------|
| Ypyrahojon ðwã   | ‘The child laughed at me’                 |
| Apyrahojon ðwã   | ‘The child laughed at you’                |
| Pyrahojon ðwã    | ‘The child laughed at her’                |
| Ytapyrahojon ðwã | ‘The child laughed at us (excluding you)’ |
| Yjpyrahojon ðwã  | ‘The child laughed at us’                 |
| Ajpyrahojon ðwã  | ‘The child laughed at you’                |
| Pyrahojon ðwã    | ‘The child laughed at them’               |

Assertatives are marked by the phonologically conditioned allomorphs *py-/pyr-/pyry-*. The latter is used with stress-initial roots, and the other two in roots with other types of stress, according to the following conditions: vowel-initial roots, as the ones exemplified in (33) and (34), are prefixed by *pyr-* and consonant-initial roots take *py-*.

### 2.1.3. Imperative verbs

In imperatives (marked by *-a* in consonant-final roots or *-Ø* in vowel-final roots), third person agreement is not *-Ø* as in declaratives and assertatives, but *i-*, as shown in the transitive verbs in (35c) and (35d). Intransitive verbs have second person agreement *a-* instead, as in (35a) and (35b):

- |       |        |                  |
|-------|--------|------------------|
| (35a) | Apyt’y | ‘eat (intr.)’    |
| (35b) | Atara  | ‘go (intr.)’     |
| (35c) | Impoka | ‘dry it (tr.)’   |
| (35d) | Iora   | ‘catch it (tr.)’ |

The di-transitive verb *hit* ‘to give’ agrees with its direct object in the imperative as well. In (36), the direct object is a first person singular, marked by the prefix *y-*:

- |      |       |                         |
|------|-------|-------------------------|
| (36) | yhira | ‘give it to me (ditr.)’ |
|------|-------|-------------------------|

Exhortative verbs are marked by the first person inclusive prefix *yj-* if the verb is intransitive, and by a third person *i-* if the verb is transitive:

- |       |              |                        |
|-------|--------------|------------------------|
| (37a) | yjhot        | ‘Let’s go! (intr.)’    |
| (37b) | yjpyt’y      | ‘Let’s eat! (intr.)’   |
| (37c) | (yjxa) iot   | ‘Let’s catch it (tr.)’ |
| (37d) | (yjxa) impok | ‘Let’s dry it (tr.)’   |

## 2.2 Embedded sentences

Embedded sentences in Karitiana are not finite, since the verb is always in its bare form, and the word order is verb-final (SOV and OSV). SOV is the word order used colloquially and OSV is archaic:

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- (38) Embedded OSV sentence  
 [Boroja taso oky tykiri] Ø-naka-hyryp-Ø ðwã  
 snake man kill perfve 3-decl-cry-nfut child  
 ‘When the man killed the snake, the child cried (colloquial)’
- (39) Embedded SOV sentence  
 [Taso boroja oky tykiri] Ø-naka-hyryp-Ø ðwã  
 man snake kill perfve 3-decl-cry-nfut child  
 ‘When the man killed the snake, the child cried (archaic)’

Storto (1999) explains the complementary distribution between matrix clauses and embedded clauses by postulating obligatory verb movement to a second structural position in the former, motivated by the checking of tense and agreement features.

### 3. Anti-agreement in object focus constructions

The usual agreement pattern shown in section 2 is changed in object focus constructions. Both in declarative and non-declarative moods, transitive verbs end up agreeing with the subject (Storto 1999).

#### 3.1 Object focus in non-declarative sentences

Object focus constructions in the non-declarative mood (OFC) always agree with the subject of the transitive verb. The non-declarative mood is used when, for instance, in a narrative, a character says something in direct speech. The third person agreement marker in non-declarative sentences is the morpheme *i-*, the same as in imperatives:

- (40) Non-declarative object focus with first person agreement  
 João y-ti-ahoj-Ø yn-o  
 João 1-OFC-laugh-nfut I-emphatic  
 ‘I laughed AT JOHN’
- (41) Non-declarative object focus with second person agreement  
 João a-ti-ahoj-Ø an-o, Ø-naka-’a ta’ã-t taso  
 João 2-OFC- you- 3-decl-say dir.evid-nfut man  
 laugh-nfut emph.  
 ‘“-You laughed AT JOHN”, the man said’
- (42) Non-declarative object focus with third person agreement  
 ’Ep i-ti-pasagnã-t ãonso  
 tree 3-OFC-count-nfut woman  
 ‘The woman counted TREES’

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- (43) Non-declarative object focus with third person agreement  
'Ep                    i-ti-pasagngã-t                    i  
tree                    3-OFC-count-nfut                    he/she/they  
'He/she/they counted TREES'

Note that cleft sentences in which the complement of the copula generates the subject of the copula, exemplified in section 1, are very similar to non-declarative OFCs presented here, especially when the copula *naakat* is not pronounced. However, even without the copula, it is possible to identify the difference between cleft sentences and OFCs: the former do not have verb agreement, but a nominalized complement of the copula, whereas the latter agree with the transitive subject. We repeat the relevant examples below (with their original numbers):

- (21) Cleft answer to wh-question with verb 'to kill':  
Pikom            (Ø-na-aka-t)            taso            ti-i-oky-t  
monkey        3-decl-cop-nfut        man            OFC-part-kill-abs.agr.  
'It is the monkey that the man killed'

- (42) Non-declarative object focus with third person agreement:  
'Ep                    i-ti-pasagngã-t                    ãonso  
tree                    3-OFC-count-nfut                    woman  
'The woman counted TREES'

Caleb Everett (2006) did not understand this difference, and for that reason, criticizes Storto (1999) for analyzing some *i-* prefixes as nominalizers (glossed as participles) and others as third person agreement markers. Another misunderstanding of Everett's analysis is to consider that a copula construction in which the copula is omitted is a different sentential type than a copula construction in which the copula is overt (Storto 2008). We mention these mistakes and misconceptions on Everett's part to show, explicitly, how our analysis differs from his.

### 3.2 Object focus in declarative sentences

Object focus constructions used in the declarative mood are the ideal answers to wh-questions. Declarative object focus constructions (DOFC) have a restriction against non-third person subjects, and for that reason they display an invariable *Ø-* agreement with the transitive subject, that is, anti-agreement (Storto 2008).

- (44) Object focus in declaratives (pronominal subject)  
João                    Ø-a-ta-ahoj-Ø                    i  
João                    3-DOFC-decl-laugh-nfut                    he/she/them  
'He/she/they laughed AT JOHN'  
(Answer to Moramon taso tiahoj (hỹ)?                    'At whom did the man laugh?')

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- (45) Object focus in declaratives (non-pronominal subject)  
 João                    Ø-a-ta-ahoj-Ø                    ãonso  
 João                    3-DOFC-decl-laugh-nfut        woman  
 ‘The woman laughed AT JOHN’

The object focus construction prefix is *a-*, homophonous with the passive marker. In focus sentences, however, we know that this morpheme is not passivizing the verb because the verb remains transitive and agrees with the agent, whereas in the passive it agrees with the patient, its sole argument. (Storto 1999, 2002).

- (46) \* João ataahoj yn(o)                    ‘I laughed AT JOHN’  
 (47) \* João ataahoj an(o)                    ‘You laughed AT JOHN’  
 (48) \*João ataahoj ajxa                    ‘You(pl) laughed AT JOHN’

We conclude that single-clause object focus sentences in Karitiana, regardless of their mood (OFCs or DOFCs), agree with the transitive subject, contrary to what occurs in single-clause declaratives, assertatives and imperatives, in which agreement reflects the person features of absolutive arguments.

### 3.3 Wh-movement of absolutive arguments

We will see that, in content questions in non-future tenses, wh-extraction of absolutive arguments involves a different process than wh-extraction of ergative subjects. Storto (1999) describes that, in the non-future tense, the copula *mon* is obligatory whenever an absolutive argument is extracted through wh-movement:

- (49) Wh-extraction of intransitive subject  
 Mora-mon                    i-hyryp?  
 Wh-cop                    part-cry  
 ‘Who cried?’
- (50) Wh-extraction of object (non-pronominal subject)<sup>2</sup>:  
 Mora-mon                    taso                    ti-i-pisogng?  
 Wh-cop                    man                    OFC-part-stab  
 ‘Who did the man stab?’
- (51) Wh-extraction of object (pronominal subject):  
 Mora-mon                    i                    ti-i-pisogng?  
 Wh-cop                    he/she/they                    OFC-part-stab  
 ‘Who did he stab?’

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<sup>2</sup> Wh- sentences may be followed by an interrogative morpheme *hỹ*, that predictably nasalizes the final voiceless consonant of verbs (*pisok* → *pisogng*)

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(52) Wh-extraction of transitive subject (non-pronominal subject):

|      |          |         |
|------|----------|---------|
| Morã | i-sokõĩ  | eremby? |
| Wh   | 3-tie.up | hammock |

‘Who tied up the hammock?’

(53) Wh-extraction of transitive subject (pronominal subject):

|      |          |
|------|----------|
| Morã | y-sokõĩ  |
| Wh   | 1-tie.up |

‘Who tied me up?’

In the examples above, it is clear that wh-extraction of absolutive arguments is marked by the presence of the morpheme *mon* following the wh-word. When the ergative subject is extracted, this morpheme is never present, there is no tense on the verb, and the verb agrees with the object.

(54) Wh-extraction of transitive subject (pronominal object)

|      |         |            |
|------|---------|------------|
| Morã | y-ahoj  | (yn-o)?    |
| Wh-  | 1-laugh | I-emphatic |

‘Who laughed at me?’

(55) Wh-extraction of transitive subject (pronominal object)

|      |        |            |
|------|--------|------------|
| Morã | y-mi   | (yn-o)?    |
| Wh-  | 1-beat | I-emphatic |

‘Who bit me?’

(56) Wh-extraction of transitive subject (non-pronominal object)

|      |        |       |
|------|--------|-------|
| Morã | i-mi   | taso? |
| Wh-  | 3-beat | man   |

‘Who bit the man?’

One could imagine that *mon* is an instance of “do-support” in a single-clause structure, that exhibits agreement with the absolutive argument. However, we have evidence that *mon* is an interrogative copula occurring in polar questions<sup>3</sup> as well, and that in wh-questions it is used in cleft constructions. The parallels between cleft sentences and wh-questions of absolutive arguments are significant: in both there is an absence of agreement on the main verb. This seems to point to a bi-clausal structure. In wh-questions of transitive subjects, however, the verb agrees with the object, as in regular single-clause declaratives.

(57) Copula *mon* in polar interrogatives

|              |      |        |      |
|--------------|------|--------|------|
| An-o         | mon? | Sarita | mon? |
| you-emphatic | cop  | Sarita | cop  |

‘Is it you? Is it Sarita?’

<sup>3</sup>

Used when the speaker wants to confirm something already known, but not seen.

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- (58) Copula *mon* in polar interrogatives  
 Apisok-o                      mon?  
 shoot-emphatic              cop  
 ‘Did you shoot (intransitive)?’
- (59) Copula *mon* in polar interrogatives  
 Õwã            taso                              okyt-o                      mon?  
 child            man                              kill-emphatic              cop  
 ‘Did the man kill the child?’
- (60) Wh-extraction of object  
 Mora-mon            an            ti-i-opĩ-t  
 Wh-cop              you            OFC-part-cut-abs.agr.  
 ‘What did you cut?’
- (61) Wh-extraction of intransitive subject  
 Mora-mon            i-hyryp-Ø?  
 Wh-cop              part-cry-abs.agr.  
 ‘Who is it that cried?’
- In absolutive wh-questions with future tense, however, we have a different pattern, since the copula *aka* occurs instead of *mon*, and it is completely inflected for person and tense, taking a nominalized complement (the verb prefixed by the participle *i-*) but no suffix of nominative agreement *-t/-Ø* on the complement of the copula. For this reason, Storto 1999 has incorrectly glossed this suffix ‘past tense’.
- (62) Wh-extraction of intransitive subject (future)  
 Morã                      i-aka-j                              i-hyryp?  
 Wh-                      3-cop-fut                              part-cry  
 ‘Who is it that will cry?’
- (63) Wh-extraction of object (future)  
 Morã    i-aka-j                      an            ti-i-pisok  
 Wh-    3-cop-nfut                      you            OFC-part-stab  
 ‘Who is it that you will stab?’
- (64) Wh-extraction of transitive subject (nonfuture)  
 Morã    i-sokõĩ                      eremby?  
 Wh-    3-tie.up                      hammock  
 ‘Who tied up the hammock?’
- (65) Wh-extraction of transitive subject (future)  
 Morã    a-sokõĩ-j                      an-o?  
 Wh-    2-tie.up-fut                      you-emphatic

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‘Who will tie you up?’

- (66) Wh-extraction of oblique argument (nonfuture)

Morã-ty            aj-andyj?  
Wh-obl            2pl-laugh  
‘At whom did you laugh?’

- (67) Wh-extraction of oblique argument (future)

Morã-kyn            aj-põr-i            ajxa  
Wh-at            2pl-shoot-fut            you(pl)  
‘At whom will you shoot?’

The absolutive agreement *-t/Ø* is optional when an aspectual auxiliary is present (Storto 1999):

- (68) Optional absolutive agreement: intransitive subject wh-extraction

Morã-mon            i-hyryp            tyka(-t)?  
Wh-cop            part-cry            imperf.mov- abs.agr.  
‘Who is it that is crying?’

- (69) Optional absolutive agreement: object wh-extraction

Morã-mon            taso            ti-i-amang            tyka(-t)  
Wh-cop            man            OFC-part-plant            imperf.mov- abs.agr.  
‘What is it that the man is planting?’

It is possible to explain that the absolutive agreement on the verb is absent because the copula *mon* already has absolutive agreement features. However, it is not clear why this should be related with imperfective semantics.

#### 4. Discussion

Karitiana uses, productively, copula constructions (as in (70)) in place of simple declaratives discussed in section 2, as in (71):

- (70) Copula sentence with intransitive verb

Yn            Ø-na-aka-t            i-ahy-t  
I            3-decl-cop-nfut            part-drink-abs.agr.  
‘I drank’

- (71) Intransitive verb *ahy* (nonfuture/future tenses)

Ytaahyt/j yn            ‘I drank/will drink’  
Ataahyt/j an            ‘You drank/will drink’  
Naahyt/j            i/taso            ‘He/the man drank/will drink’  
Ytaahyt/j yta            ‘We (excluding you) drank/will drink’  
Yjtaahyt/j yjxa            ‘We drank/will drink’  
Ajtaahyt/j ajxa            ‘You drank/will drink’  
Naahyt/j            i/taso            ‘They/ the men drank/will drink’

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Every intransitive in the language may occur in the copular construction, but no transitive verb may do so, unless it is first intransitivized through passivization, as shown in (10) and (11) in section 1, repeated here as (72) and (73):

(72)

|                          |                 |                   |             |
|--------------------------|-----------------|-------------------|-------------|
| *Taso                    | Ø-na-aka-t      | i-'y-t            | (ta-ti'y)   |
| man                      | 3-decl-cop-nfut | part-eat-abs.agr. | 3anaph-food |
| 'The man ate (his food)' |                 |                   |             |

(73)

|                     |                 |                        |  |
|---------------------|-----------------|------------------------|--|
| Taso                | Ø-na-aka-t      | i-a-'y-t               |  |
| man                 | 3-decl-cop-nfut | part-pass-eat-abs.agr. |  |
| 'The man was eaten' |                 |                        |  |

We have seen, as well, that, according to Storto (1999), the specifier position of verb-second word orders in declarative and non-declarative sentences is associated with focus semantics. That is, whenever a *wh*-phrase, or answer to a *wh*-sentence occurs, the focused element (new information) is in that specifier position. Clefted arguments and subjects of copular elements seem to also be focused, because arguments occurring before the copula in such constructions are used as answers to *wh*-questions.

It is tempting to suggest that argument movement to that preverbal position is related to Case, but the facts do not support this hypothesis. We have seen that the inflected copula never agrees with the argument in its specifier, but with its object, an invariable third person (the nominalized predicate). Case checking in Karitiana does not seem to ever require movement, because verb-initial word-orders are possible, and co-occur with absolutive agreement on the verb. Storto (1999) offers an analysis of Case in Bittner & Hale's (1996a, 1996b) Case theory, according to which ergative Case is assigned in situ under government by I and absolutive (labeled "nominative" by them) is assigned under government by C. Besides, copula and cleft sentences seem to attribute focus semantics to the subject of the copula, because answers to *wh*-questions invariably require that the focused argument be preverbal. Given these facts, we assume that the verb-second position is a focus position to which verbs move in declarative sentences.

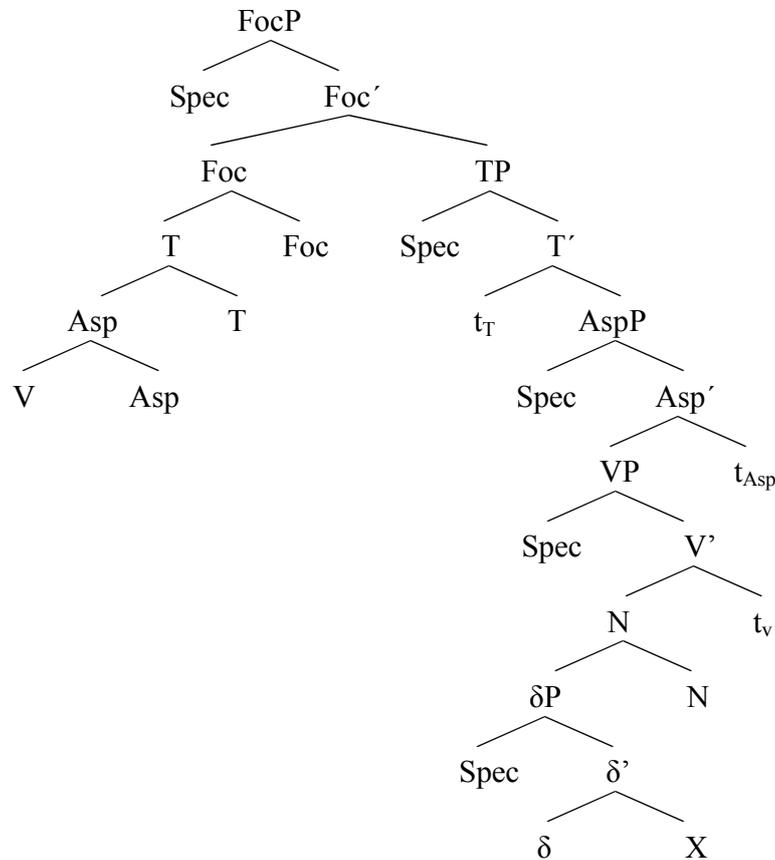
The remaining question is: why are copular sentences used in place of intransitive declaratives in Karitiana? The answer has to be that the only way to focus an intransitive subject is through the use of a copular construction. We have seen that in *wh*-questions a similar restriction applies to focused objects and intransitive subjects.

A possible solution is to explain this restriction as a result of the argument structure of verbs in the language. It is possible to argue that intransitive verbs and

objects behave similarly when they are extracted in Karitiana by virtue of the fact that they are both internal arguments inside the verbal projection. It is possible that wh-extraction of internal arguments to the clause-initial focus position has to involve a special morpho-syntax in the language because they are already prosodically focused inside the verb phrase by virtue of being the most embedded arguments. To be wh-extracted, internal arguments have to additionally be syntactically focused via the use of a copula. Copulas have focus features, but they also bring with them the requirement of a nominalized clausal complement. For this reason, wh-extraction of absolutive arguments must involve bi-clausal structures.

One structure that accounts for all the facts discussed with respect to the copular constructions is given below, in which copulas are verbs that take nominalized small clauses as complement:

(74)



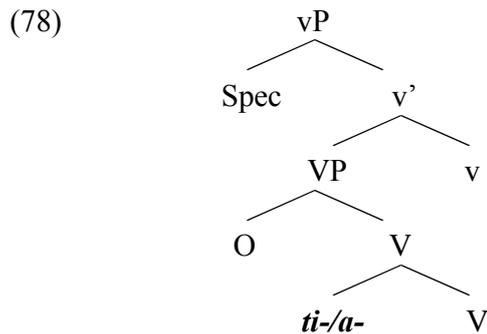
In this structure, the small clause  $\delta$ P that serves as a complement to the copula has the structure of unaccusative verbs in Hale & Keyser's 2002 theory of argument structure, and the functional head  $\delta$  is instantiated by the absolutive agreement morpheme on the complement of the copula. N is the participle head *i-* that nominalizes the small clause when X is V or A; if X is a nominal, nominalization is blocked because it would be vacuous, since movement of X to  $\delta$  to N is assumed. As in every Karitiana sentence, there is V to Asp to T to Foc movement.

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Storto 2009b gives evidence in favor of that analysis of  $\delta P$ . The transitivity alternation exemplified in (75)-(76), in which all intransitive verbs participate in the language, is the diagnostic test used cross-linguistically to identify unaccusative verbs. Transitive verbs, however, cannot be transitivized through the addition of the prefix *m-*, as attested in (77), requiring a bi-clausal structure instead (Storto 2002):

- (75) Intransitive verb ‘to run’:  
Ø-Naka-pykyn-Ø            taso  
3-decl-run-nfut            man  
‘The man ran’
- (76) Intransitive verb ‘to run’ transitivized by *m-*:  
Taso            y-taka-m-pykyn-Ø            yn  
man            1s-decl-trans-run-nfut            I  
‘The man ran me (made me run)’
- (77) Transitive verb ‘to bite’:  
\*Taso            Ø-na-m-okoot-Ø            ðwã  
man            3-decl-trans-bite-nfut            child  
‘The man made the child bite (sth)’

Finally, how do we account for anti-agreement? We have seen that object focus can be attained not only through clefting in *wh*-questions, but through movement of an object to the preverbal position in single-clause declaratives and non-declaratives. In both cases, the verb is marked with an object focus morpheme (*a-* and *ti-*, respectively), whose presence introduces anti-agreement. Object focus morphemes could be seen as a resource similar to the copula used by the language to syntactically focus an argument that is already phonologically focused. But what is their status in the sentence and why do they introduce anti-agreement? Objects behave differently than intransitive subjects in such cases because although both are internal arguments, the former are sisters to the verb, whereas the latter are subjects of small clauses. In Karitiana, it is clear that object focus morphemes are inserted very low in the sentential structure, because they occur inside nominalized clausal complements of the copula in cleft sentences. If they are inside the projection of a nominalized transitive verb, we have to say that they are either in place of the object or inside the verb. If they were in place of the object, they would intransitivize the verb, and that is not what happens. Therefore, our analysis is that they are inside the verb, forming with it a complex head:



In Bittner & Hale's theory of Case (Bittner & Hale 1996a, 1996b, Hale & Storto 1997, Storto 1999), the object focus morphemes *a-* and *ti-* can be analyzed as V-adjoined Ds that allow accusative case to be assigned to the object. D functions as a Case-competitor to the object in this theory, enabling the verb to assign accusative Case to the object. This explains anti-agreement in single-clause object focus constructions. It also explains why focus morphemes can be homophonous with passives: they form a complex head with the verb in both cases, only in passives their category label is N and in focus constructions it is D.

## 5 Remaining questions about focus constructions

Research on focus in Karitiana must address many questions that remain unanswered at the present time. How many kinds of focus do exist in the language? What is their syntactic status and meaning? Which ones correlate with the syntactic focus (Foc) discussed in this paper? How does focus work in different sentential types (declarative versus assertative, for instance)? Do subjects in SVO sentences get focused obligatorily to escape a topic interpretation? What are the phonetic correlates of focus in Karitiana sentences? What is the pragmatics of focus, that is, how exactly is information structure encoded in the language? Although many questions remain, there are a few things we know about syntactic focus in the language and in other Tupi languages. Storto (1999, 2005) has shown that Mekéns and Karo are two other Tupi languages representing two different families inside the stock in which focus morphology and anti-agreement is present. The object focus marker in Mekéns is homophonous with an antipassive morpheme, and they both seem to have had their historical origins in a third person pronoun. The same morpheme is present in Karo, and it is used whenever an argument is focused. If these heads historically used to be incorporated nouns that intransitivized sentences making them passive or antipassive, it is understood that grammaticalization N → D) could have occurred, leading to a reanalysis in terms of focus.

Other language families in which focus seems to play a central role are Chadic (Afro-asiatic) and Mayan. In a book dedicated to focus in Hausa (Chadic), Green (2007) has explained exceptional agreement in focus sentences by making the head of FP - Focus Phrase, projected at the left-periphery of the sentence - responsible for the exceptional agreement morphology (anti-agreement). In Karitiana, however, the left periphery head projecting the focus phrase is not the one responsible for anti-agreement. Any argument can be focused via movement to the specifier of the focus projection, but

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anti-agreement is limited to *object* focus constructions. The morpheme involved in such cases seems to be a lower head than Focus, internal to V. Mayan languages have an *agent* focus morpheme exactly like the one in Karitiana, Mekéns and Karo (Tupi languages). In K'ichee', as discussed by Hale & Storto (1997) and Storto (1999), anti-agreement morphology is directly linked to the presence of the agent focus morpheme. The language also has an antipassive, homophonous with the agent focus morphology, suggesting that the agent focus morpheme is a lower head similar to the one described in this paper for object focus constructions in Karitiana. At this moment, it is clear that there are two heads involved in focus constructions in Tupi and Mayan languages: a left-periphery head where focused arguments move (FP), and a lower head, projected inside the verb. The lower head is the one responsible for anti-agreement in both language families, and it may have had its historical origin in passives and antipassives. It remains to be explained why are these lower heads necessary when focus movement of some arguments occur. In Karitiana an explanation was given in terms of an interaction between prosodic and syntactic focus. The same explanation, however, cannot be carried along for Mayan languages, in which the low focus morphology is limited to those arguments that are not prosodically focused in the VP (agents).

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