To appear in: R. Van Valin (ed), *Investigations of the Syntax-Semantics-Pragmatics Interface.* Amsterdam: John Benjamins.

Wari' Intentional State Constructions

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Abstract: Wari', the last viable language of the Chapakuran family of Brazil and Bolivia, manifests a typologically and theoretically interesting construction for expressing intentional states. I refer to this construction as the INTENTIONAL STATE CONSTRUCTION. The special interest of this construction is that it simultaneously manifests properties of both words and clauses, yet seems difficult to subsume under common definitions of Complex Predicates, mixed categories, or within theories of syntax based strictly on endocentricity. It is argued that these constructions are handled straightfowardly by Role and Reference Grammar (Van Valin and LaPolla, 1997), in which they are dominated by a non-projecting node (NUC) heading an exocentric unit, CLAUSE.

Keywords: complex predicate, predicator, morphological integrity, mixed categories, Wari', Amazonian

1. Introduction[i]

In a previous paper (Everett 2005a), I reported on the interesting case of periphrastic pronouns in the Chapakuran language, Wari', spoken in Western Brazil. In this paper, I want to explore another type of construction in the same language. I refer to this type as the INTENTIONAL STATE CONSTRUCTION (ISC). The special theoretical interest of the Wari' ISC is that its predicator simultaneously manifests properties of both words and clauses (more neutrally, phrases) and thus provides insights into the relationship between syntax and morphology. The previous analysis of Wari' ISCs in Everett and Kern (1997, 39ff henceforth EK) and Everett (1998) fails to account for ISCs because it is based on a simple 'verbalization' or type-shifting analysis. This turns out to offer no account for the hybrid nature of Wari' ISCs.[ii] This is because, as we see below, though Wari' ISC predicators closely parallel verbs in some of their behavior, they are like clauses in other aspects of their behavior. If they were just zero-derived verbs, as per Everett and Kern's analysis, we would predict that their behavior should completely parallel the behavior of verbs. But this is false. Wari' ISCs not only bear on an interesting descriptive issue of an endangered Amazonian language, their analysis offers support the theory of phrase structure proposed in RRG.

This paper is organized as follows. First, I survey the basic surface syntax of Wari'. The next section examines in detail the empirical focus of this paper – the Wari' Intentional State Construction. In this section both the functional and the formal properties of ISCs in Wari' are considered. In section 4 I provide an analysis of Wari' ISCs within Role and Reference Grammar (RRG). I argue that RRG accounts for Wari' ISCs by generating their predicators directly under the independently necessary category

of Nucleus. The conclusion discusses implications of my analysis for linguistic theory and for the role of morphology overall in the grammar of Wari', i.e. why Wari' has such an impoverished morphological system, so uncommon for American Indian languages. I argue that this follows from the theory of ISCs developed in the body of the paper. A summary of the paper's major conclusions ends the text.

2. An Overview of Wari' Syntax and the Intentional State Construction

2.1. Inflection

Tense, voice, person, number, and gender are all marked in Wari' clauses and are manifested in two distinct clausal positions. In verb-initial sentences, all four of these categories appear on a *Verbal Inflectional Clitic*, VIC, immediately following the verb. This is illustrated in (1) - (5) below. However, subject to the constraint that it must occur after the first constituent in the sentence, which offers interesting insights into Wari' phrase structure, as we see below. When the verb is not sentence-initial, the tense must follow the first constituent preceding the verb, as in (6) – (8) below.

As the examples show, the VIC agrees with both the subject and object. Example (2) illustrates that the VIC also agrees (neuter gender) with embedded sentences, when these are verbal arguments (shown by cosubscripting). It also illustrates the normal postverbal position for an embedded sentence. Example (2) also shows that each word of an embedded sentence is stressed separately. (Stress is indicated by italics. The acoustic correlate of stress in these examples is loudness. See Turner (2006) for a fuller documentation and analysis of stress and intonation in Wari'.) Each word of the subordinate clause has relatively equal length. In ISC predicators, the individual words

are dramatically shortened). This latter fact is important because it provides us with a diagnostic for identifying the predicate distributionally, apart from meaning. That is, the material immediately preceding the VIC is stressed like a simple word. Further, the stress preceding the VIC is the default primary stress of the sentence as a whole. This in turn suggests a default form of predicate stress (Van Valin & La Polla (1997, 206ff), independently confirmed for Wari' by Turner (2006, 16ff).

(1)	***Quep***	**na *-in***	**xir*im***	***te***	**pa*ne***	***ta***.
	do	3s:rp/p -3n	house	father:1s	rem:past	emph
	'My father made a house long ago.'					

(2)	**To*mi'***	**ta*in*$_i$**	[***ca***	***mi'***	***ne***]$_i$.
		ta'-in			
	speak	1s:rf-3n	n:rp/p	give (die)	poss:1s
	'I will tell you [about my death].' (lit. '…about my giving')				

When the preverbal position is filled, as in (6) - (9) below and many others, it is immediately followed by a different clitic (labelled INFL by Everett and Kern, 8ff.), marking tense and agreement with the gender of the item in sentence-initial position, rather than with subject or object per se.[iii]

2.2. Constituent Order

Wari' is a VOS language. The verb always precedes direct and indirect objects, which in turn precede the subject. However, the VOS ordering is manifested in somewhat different ways by two basic types of root sentence. The two types of sentence are simple V-initial sentences and sentences which begin with a word or phrase indicating mode or illocutionary force – what Everett and Kern (p43) label COMP(lementizer) sentences and sentences in which the verb/predicator is the initial constituent. Examples (3) and (4) show verb-initial sentences while (6) – (9) illustrate sentences with one of the small set of preverbal modal markers.[iv] In both types of sentence, tense is marked in the second position of the sentence, i.e. immediately to the right of the first constituent. As stated, voice and agreement features appear together on a postverbal clitic (VIC) in V-initial and ISC-predicator clauses. Tense generally also appears on the VIC when the VIC is in sentence-second position. In what follows, we first look at VICs in verb-initial sentences, then in sentences which are not verb-initial. The VIC is underscored.

Verb-initial sentences[v]

(3) **Ten** **<u>ta</u>** **wao'**.
weave passive:3s type of basket
'Baskets are woven.'

(4)	**Mi'**	**<u>non -on</u>**	**con**	**hwam**	**hwijima'**	**mon tarama'.**
	give	3p:rp/p -3pm	prep:3sm	fish	children	collective man

'The men gave the children fish.'

Let me explain in more detail why I am here referring to inflectional morphemes (**tain**, **ta**, and **nonon**, in (2) – (4), respectively) as clitics rather than affixes.[vi] Everett and Kern (1997, section 2) analyse these as clitics rather than affixes for several reasons. First, they regularly bear stress on their final syllable, as does the verb. Therefore, if they were treated as verbal suffixes, then this would imply that all verbs must bear two stresses, one on the agreement-tense morphology and another on the last syllable of the verb stem. Yet, multiple word stresses are otherwise unattested in Wari'. Second, the VICs do not undergo Vowel Harmony with the verb, though affixes normally do undergo Vowel Harmony with their host morpheme. Third, VICs can attach to categories larger than words, as shown in this paper. That is, by attaching to both ISC predicators, which have the form of sentences, as well as verbs, VICs show that they are not lexically restricted to a particular morphological level of host, unusual behavior for affixes, but common behavior for clitics (see Everett (1996), among many others). Fourth, they do not interact morphophonemically in any other way typical of affixes with any word adjacent to them.[vii] In summary, they manifest behavior normal for clitic-groups.

Strings of verbs are analyzed as compounds (EK, 379ff) Wari' verb morphology is notable for its very productive use of compounding. I offer an example of this here, because the phenomenon turns out to be important for the central claim of this paper, i.e. that there are deep parallels between verbs and ISC predicators. The VIC follows the last

member of the compound. Stress is placed on the last syllable of the compound, shown in (5) by italicizing the stressed syllable ***wi***:

(5)	**Pan'**	**corom**	**mama'**	**pin**	**'a*wi***	**<u>nana</u>**
	fall:s	enter	go:p	completely	completely	3p:rp/p
	'They all fell into the water.'					

Let us now consider another type of Wari' sentence – sentences with preverbal material. Example (7b) shows that in an interrogative sentence, more than one word may precede tense).

(6)	**Ma'**	**co**	**tomi'**	**na**?[viii]
	that:prox:hearer	m/f:rp/p	speak	3s:rp/p
	'Who is speaking?'			

(7) a. **Ma'** **co** **tomi'** **ca**?

that:prox:hearer m/f:rp/p speak 3sm

'Of whom is he speaking?'

b. ***Ma'*** ***carawa*** **ca** **pa'** **caca** **mon**

that:prox:hearer animal n:rp/p kill 3pm collective

tarama'?

man

'What thing/animal did the men kill?'

Again, example (7) shows that tense is the second syntactic constituent, rather than merely the second word, in the clause, because it follows [**ma' carawa**], rather than simply following **ma'**. This is interesting because in verb or ISC-initial sentences, tense either follows the verb or ISC predicator, never the verb + object(s), this offers some support for the RRG contention that VP is not a syntactic constituent (see section 4 below for an introduction to RRG). Otherwise, we lose the simple generalization that tense follows the first constituent.

(8) **Ma'** ***ca*** **para** **'aca** **ca** **pije**

that:prox:hearer n:rp/p why cry 3sm child

ma'?

that:prox:hearer

'Why is that child crying?'

(9) **'om** ***ca*** **mao** **ca**.

not:exist n:rp/p go:sg 3sm

'He did not go.'

As we see in the above examples, following the first constituent and the tense marker, the verb is the next constituent, followed in cases where the verb is non-initial (except subject questions), by a tenseless agreement VIC. That is, when the Verb is initial in the sentence then the VIC is tensed. Otherwise, except when it follows ISC predicators or in clauses where the subject noun phrase is questioned, it is tenseless. This is interesting since the fact that the VIC following an ISC predicator is obligatorily tensed suggests that this predicator is behaving like the main verb, rather than like a 'fronted' or otherwise 'dislocated' constituent.

3. Intentional State Constructions[ix]

3.1. The function of Intentional State Constructions

Many Amazonian languages report on others' thoughts, character, reactions, and other results of intentional states by means of quotatives, i.e. literally putting words in people's mouths. Wari' also uses quotatives for these purposes. But in Wari' the range of uses is much larger than I have seen for other Amazonian languages (with the possible exception of Kwazá, as argued convincingly by van der Voort (2002)). Most subtypes of Wari' ISCs seem to derive from quotatives, the basic form of which is illustrated in (10). However, unlike the case in most languages, perhaps, in Wari' the verb 'say' is missing

entirely.[x] I consider this quotative use of ISCs to be their basic meaning because (i) it is the most frequent; (ii) many other types of ISCs can be interpreted as quotes, at least figuratively; (iii) it manifests the basic structure that some of the others appear to use as a baseline for deviation.

It is useful here to provide a bit more of the background on some of the structural differences between types of ISCs in Wari. There are some significant differences between ISC types and subtypes. I only cover some of these here. The reader is therefore urged to consult Everett and Kern (1997, 39-158) for details. What Everett and Kern refer to as 'verbalized sentences' are sentences in which the predicator is manifested by one of a large set of derived predicator types. The predicator of such sentences can often, but by no means always, be interpreted as embedded speech. There are two groups of verbalized sentences in the analysis of Everett and Kern, which I also assume here. The first includes direct speech, future tense constructions, supposition, and purpose. The distinguishing character of this group is that their derived predicators have the form of a quotation. The second group includes conditional, desiderative, refusal, sequential, and comparative sentences. These differ from the first group in that either the embedded portion would not be a well-formed sentence on its own, or the form of the construction as a whole is not that of a quotative. Some sample sentences and proposed structures for them are given in (10) - (13):

The crucial observation with regard to VICs and phrase structure to take away from the above discussion is that VICs are obligatory and can attach only to the verb or to the ISC predicator. Although tense placement alone merely shows that ISC predicators are constituents, VIC placement shows something more – the VIC only attaches to the

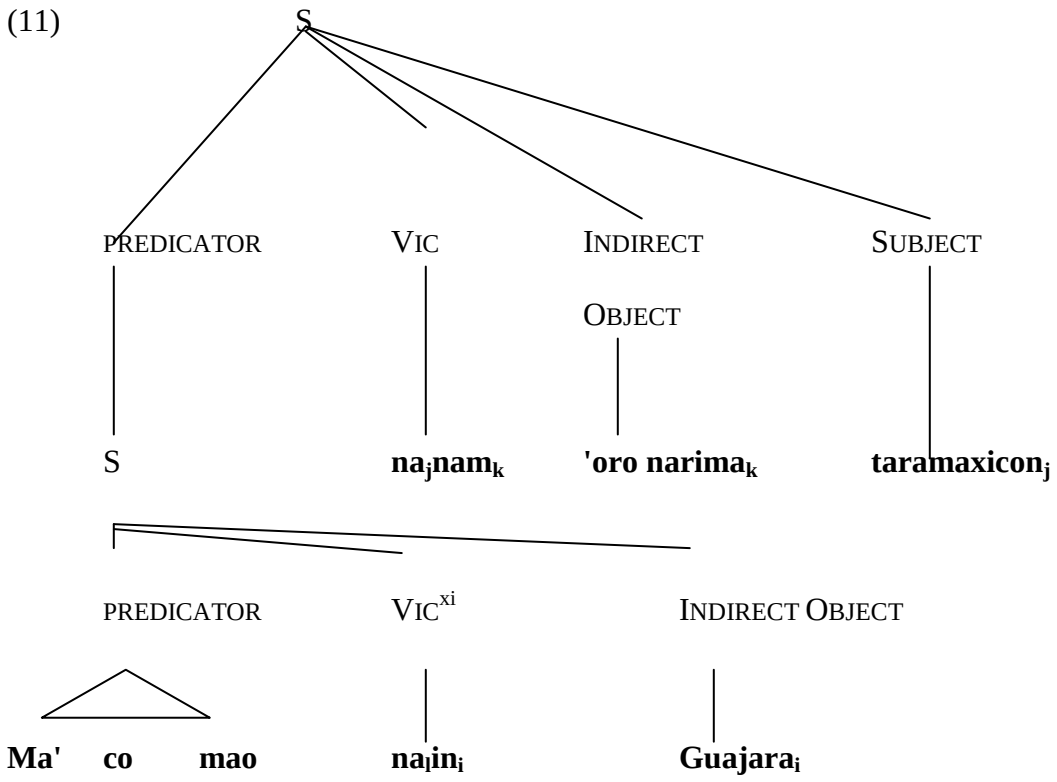
predicator – either the verb or the ISC predicator, showing an especially close functional and formal relationship between the two. Capturing this relationship is the focus of this paper. VICs, unlike tense, are not second position clitics (see Everett and Kern (312ff) for extensive discussion), as seen in examples like (7b), where the VIC, **ca** '3sm', is the fifth (or fourth, depending on the analysis of the particular structure) constituent of the clause, immediately following the (compound) verb, **para 'aca** 'why cry'. Example (10) shows the basic form of a quotative.

Quotative

(10) **Ma'** **co** **mao** **na** **-in$_i$** **Guajará$_i$**
that:prox:hearer m/f:rp/p go:sg 3s:rp/p -3n Guajará
(Brazilian city)
na$_j$ **-nam$_k$** **'oro** **narima$_k$'** **taramaxicon$_j$.**
3s:rp/p -3pf collective woman chief
'"Who went to Guajará?" (said) the chief to the women.'

In what follows, I use the node 'predicator' as a neutral term for lumping together verbs and ISC predicators. This will be relabeled as NUCLEUS following our introduction to RRG in section 4. Also, the grammatical relations (subject, object, indirect object) in the tree diagrams are informal labels and will be changed to the RRG label ARGUMENT in section 4.

(11)



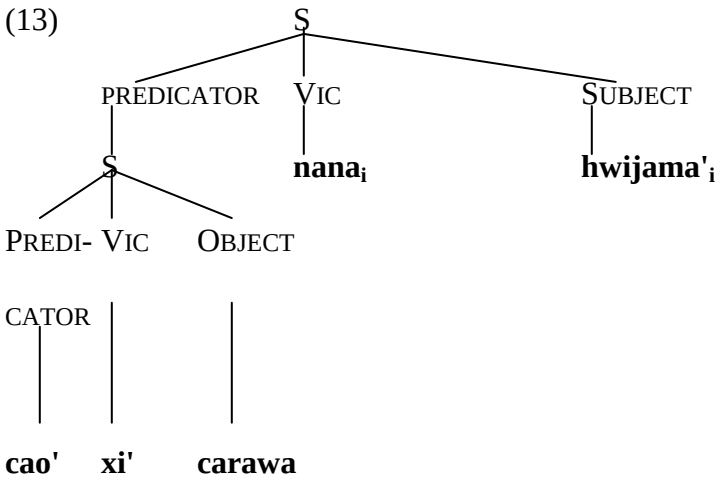
In (11) we see an embedded PREDICATOR, **Ma' co mao** 'who go', which is followed by the agreement-tense clitic complex, **nain**, where **na** agrees with an understood masculine subject (not part of the structure) and **in** agrees with **Guajara.** The literal meaning of this most embedded clause is 'Who went to Guajara', where Guajara is the indirect object of the verb **mao**. This is in turn embedded in a larger structure (lacking a verb), 'he-to-them (fem) Chief women'. It means literally 'Who went to Guajara (said) Chief to women'. Though a verb of saying is necessary to the English translation, it is not necessary in the Wari' clause (more on this below). Example (12) shows a simpler ISC construction. This one is used to communicate future tense (see the next section) but has the form, roughly, of a quotative.

(12) **Cao'** **xi'** **carawa** **nana** **hwijima'**.

eat 1pincl:rf animal 3p:rp/p children

'The children will eat food.' (lit: '"We will eat food," the children (say).')

(13)



Let's now turn to a more detailed introduction of the subtypes of Wari' ISCs, since understanding them is essential to understanding the significance of the facts of Wari' for theories of phrase structure.

3.2. The form of Wari' ISCs

3.2.1. Overview of Wari' ISCs

When the properties of ISCs are examined in detail, it turns out that they share two very different types of properties. First, they pattern as if they were single words, as discussed throughout this section but especially in subsection 3.2.3. But, second, they also manifest properties of phrasal syntax. In this section, I will lay out the structure of each type as a simple additive formula, followed by examples and a brief note about its

function. This is space-consuming, but I believe it is important in order to appreciate the theoretical, typological, and descriptive points here. Reference is made in parentheses to the constituents of the ISC predicator iff there are special restrictions on its form. Otherwise it can have the form of any independent clause. For example, the *Future Tense* ISC is more constrained than a *Direct Speech* ISC, being limited to the first person singular or inclusive plural and realis future. All Group One ISCs may stand alone as independent sentences (with slightly different interpretations).

GROUP ONE INTENTIONAL STATE CONSTRUCTIONS

(A) *Direct Speech* (EK, 59)

(14) Function: The function of the Direct Speech ISC is to express directly cited material.

(15) Structure = ISC predicator + Tensed VIC + Optional arguments

This is illustrated in (10) above, repeated here as (16):

(16) **Ma'** **co** **mao** **na** **-in$_i$**

that:prox:hearer m/f:rp/p go:sg 3s:rp/p -3n

Guajará$_i$

Guajará (Brazilian city)

na$_j$ **-nam$_k$** **'oro** **narima$_k$'** **taramaxicon$_j$.**

3s:rp/p -3pf collective woman chief

'"Who went to Guajará?" (said) the chief to the women.'

(B) *Future Tense* (p59)

(17) Function: The function of the Future Tense ISC is to express an individual's intention to carry out a future action. This ISC type conveys a greater sense of the knowledge of the reportee's motivation than does a simple morphological future. It is more commonly used than the morphologically simpler future tense markers in Wari' (see Everett & Kern 1997, 318ff).

(18) Structure = ISC predicator (verb + first singular or first plural inclusive realis future VIC + optional object or adjunct) + realis past/present or realis future VIC + optional arguments

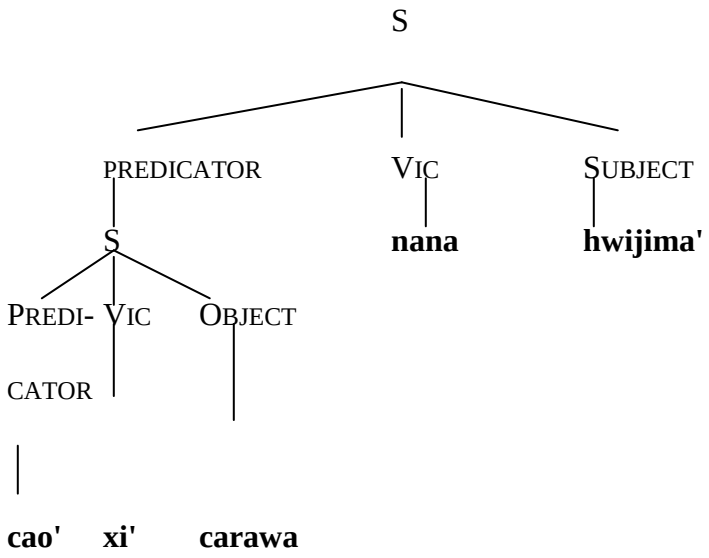
Note that the Future Tense ISC predicator's embedded predicator must contain a first person VIC. This is a restriction peculiar to the Future Tense ISC. As we see, each of these subconstructions has its own restrictions.

Example:

(19)	**Cao'**	**xi'**	**carawa**	**nana**	**hwijima'**
	eat	ipincl:rf	animal	3p:rp/p	children

'The children will eat food.' (literally: *'"We will eat food", the children (say).'*)

(20)



(C) *Supposition* (p63)

(21) Function (Everett & Kern, 63ff) – Supposition ISCs are used to express mistaken speculation or expectation of the speaker.

(22) Structure = ISC predicator (verb + third singular or third plural realis future VIC + object OR subject + postverbal modifier **ma'**) + realis past/present VIC + (optional) arguments

Note that only a third person singular or plural VIC may occur in the embedded clause, regardless of its real-world referent.

(23) **Hwara'** **'opa** **tara**

big:sg strength 3s:rf

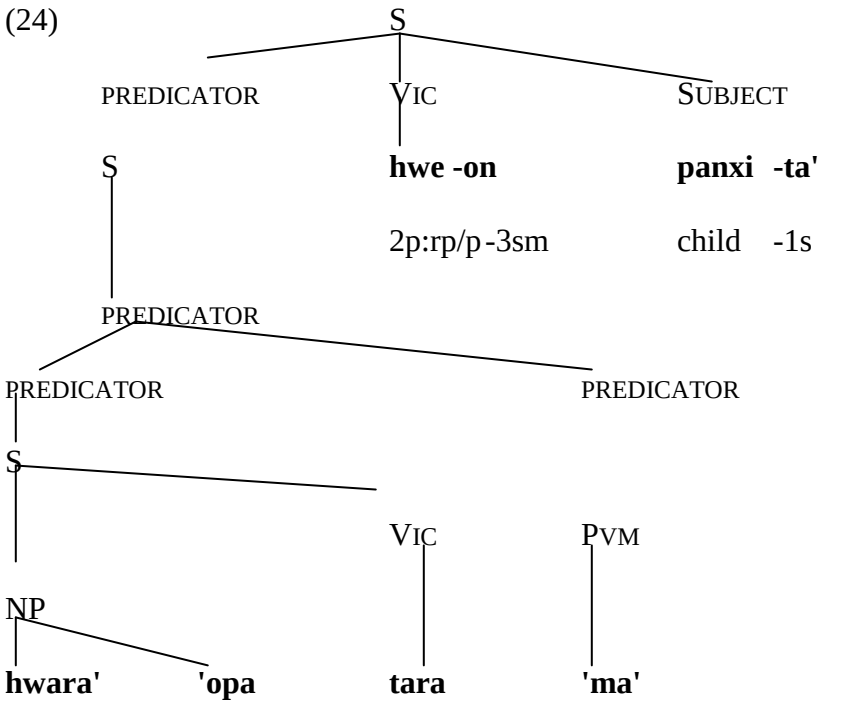
ma'[xii] **hun** **panxi** **-ta'**?

that:prox:hearer hwe -on

2p:rp/p -3sm child -1s

'Do you think my son is strong?' (lit: 'Do you (think) of my son, "<u>He is probably strong</u>"?')

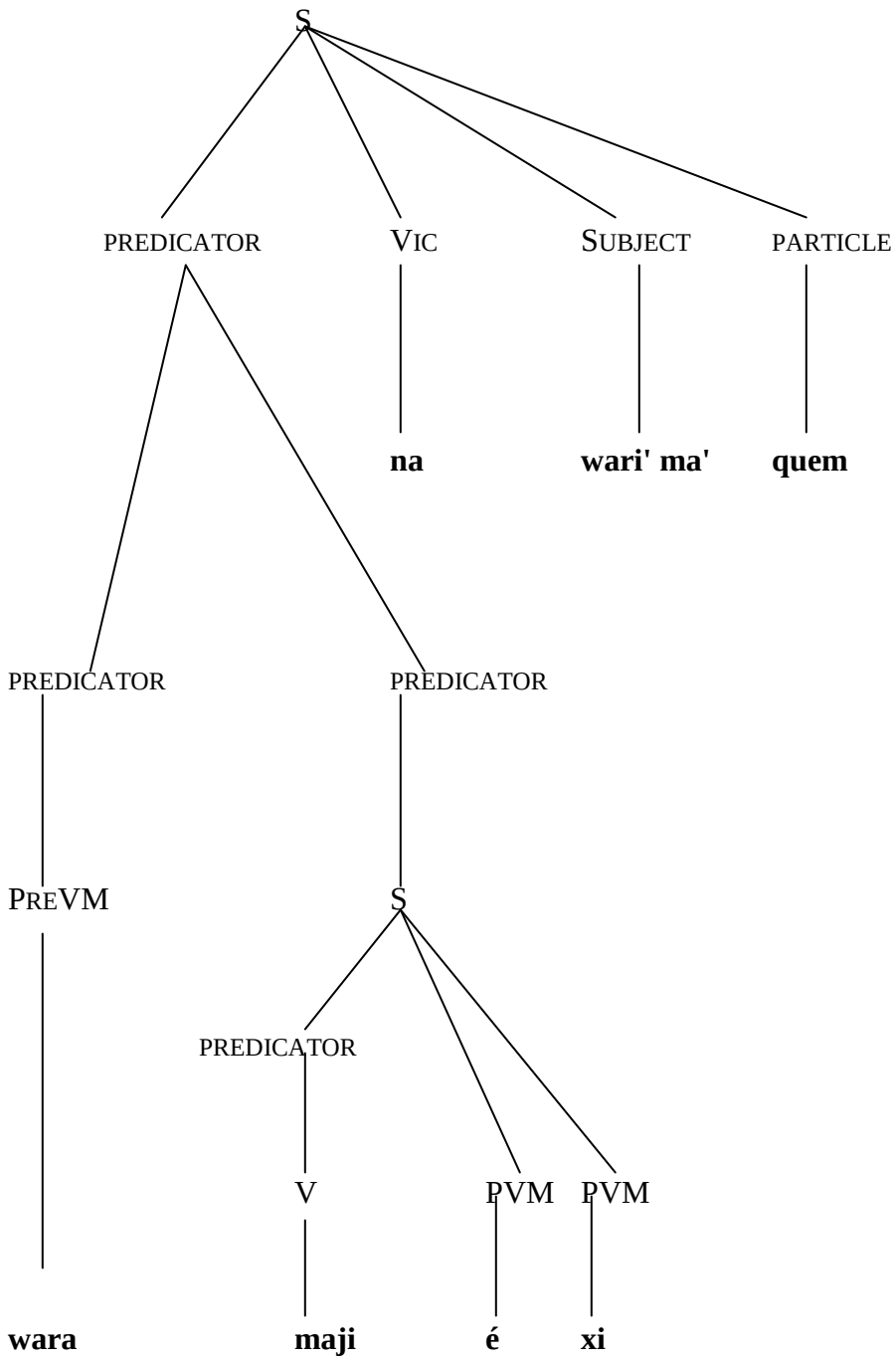
(24)



Example (23/24) is interesting in particular because postverbal modifiers, like **ma'**, normally only follow verbs (EK139ff). Its appearance here is licensed only if the material preceding it, **Hwara' 'opa tara** 'he is probably strong' is analyzed as the first member of a predicator compound and **ma'** 'that:prox:hearer' as the second member. Compounding is one of the main sources of evidence used by Everett and Kern to argue that ISCs are 'desentential verbs'. Any analysis must account for this striking fact. Example (25) below shows that Wari' ISCs may also take preverbal modifiers, also otherwise limited to verbs (and verb compounds):

(25) **Wara** **maji** **e'** **xi'** **na** **wari'**
pvm:already let's:go emph when 3s:rp/p person
ma' **quem.**
that:prox:hearer previous referent
When that person already (said), "Let's go".

(26)



(D) *Purpose* (p67)[xiii]

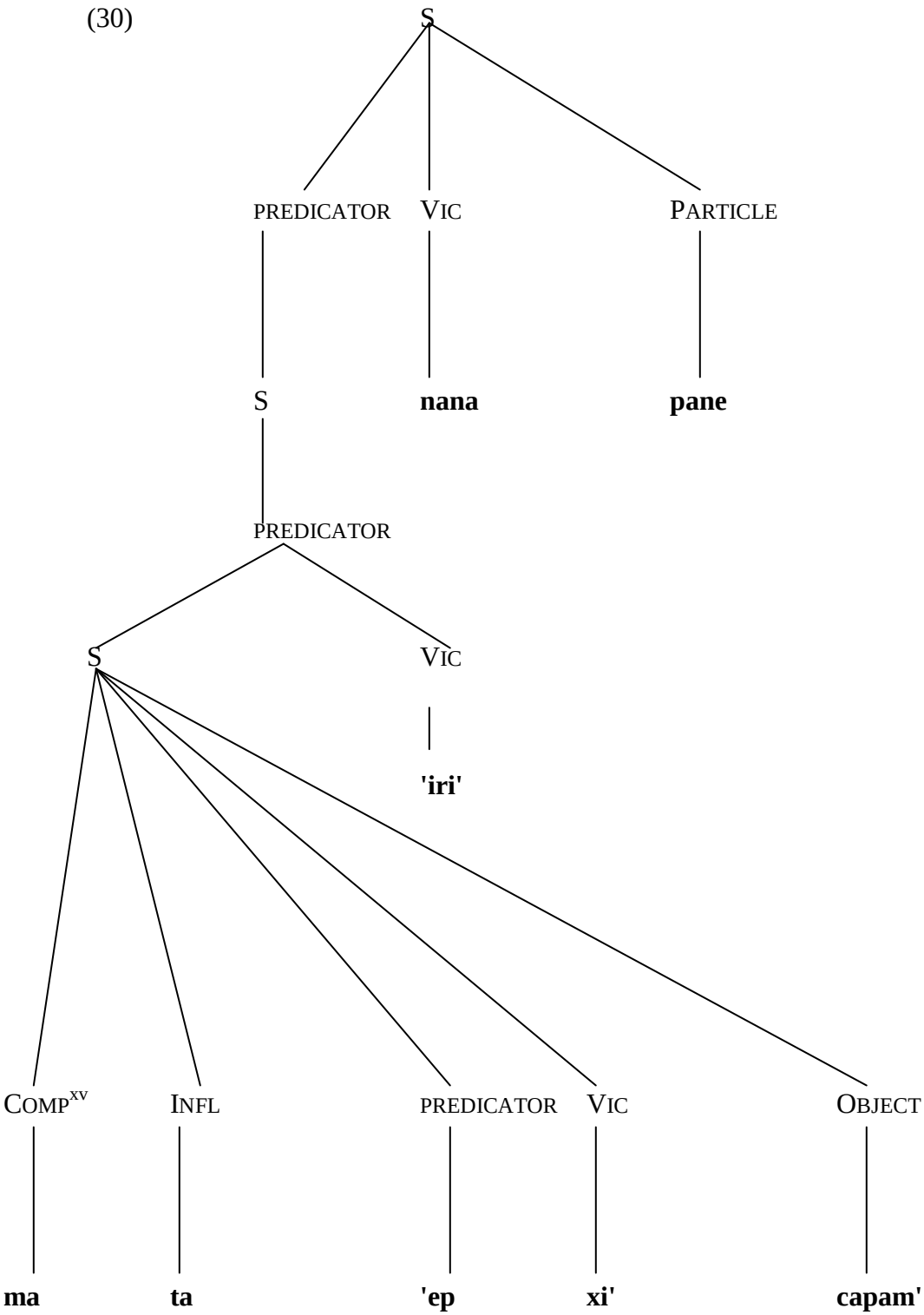
(27) Function: These sentences are used to indicate knowledge of the purpose of a particular discourse participant. To do this requires access to the (hypothesized) intentional state of the actor.

(28) Structure = ISC predicator + tensed VIC + (optional) arguments and adjuncts[xiv]

(29) **'I'** **nana** **mapac** **'oro** **narima'**.
tear 3p:rp/p corn collective woman
Ma' **ta** **'ep** **xi'**
that:prox:hearer rf grind:corn 1pincl
capam' **'iri'** **nana** **pane**.
cornbread 1pincl:rp/p 3p:rp/p remote:past
'The women shucked (tore) corn. "So that we (say) 'We will make cornbread,'" they (said).' (More freely, 'The women shucked corn in order to make cornbread.')

In example (29), the first sentence sets the stage by giving us the action carried out. The second sentence gives us the purpose. The structure of the second sentence of (29) is represented in (30):

(30)



'The women shucked (tore) corn. "So that we (say) 'We will make cornbread,'" they (said).' (More freely: 'The women shucked corn in order to make cornbread.')

GROUP TWO INTENTIONAL STATE CONSTRUCTIONS

Group Two ISCs are distinct from Group One ISCs mainly in that *they are not* (usually) *well-formed sentences on their own,* but are only grammatical as ISCs.

(A) *Conditionals* (p68ff)

(31) Function: To express implicational antecedent-consequent relations.

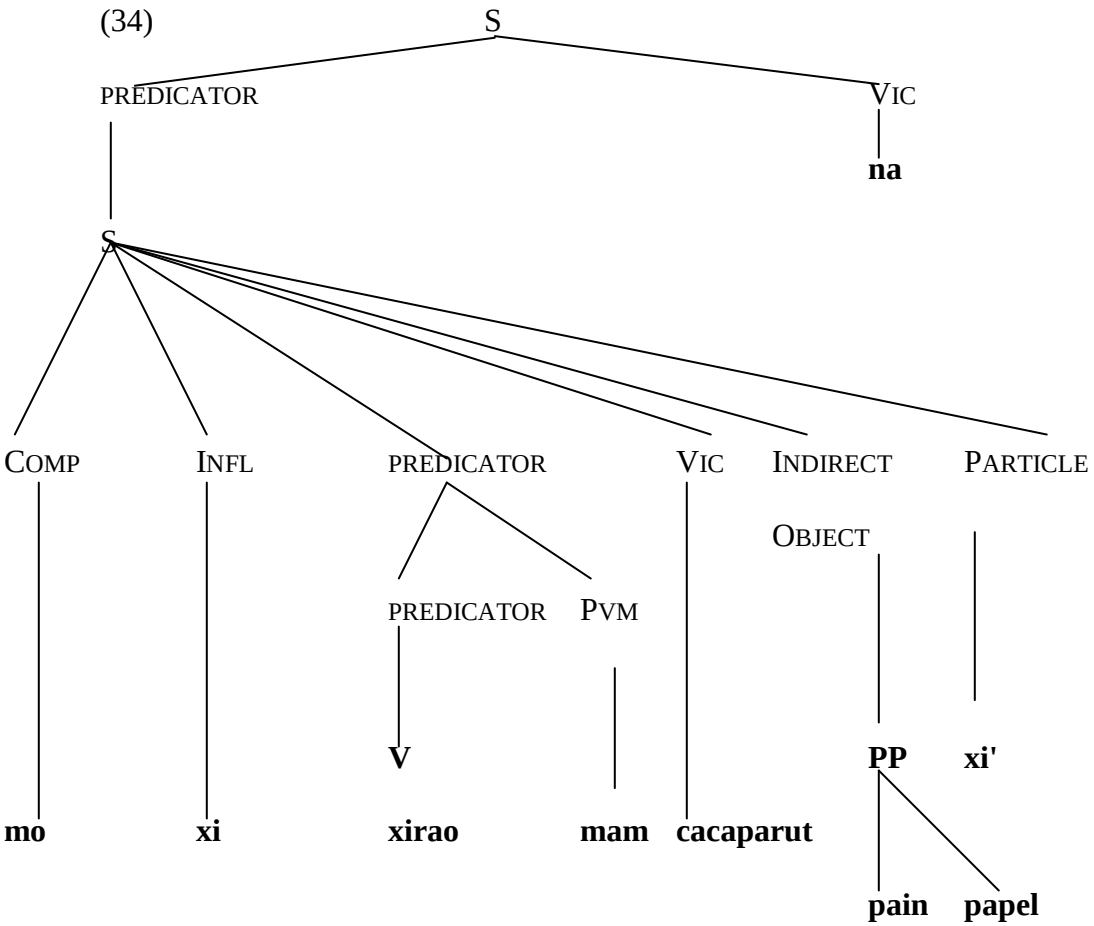
(32) Structure: ISC predicator (**mo** sentence-initial 'conditional' marker + **xi** 'INFL: irrealis + predicator **+ xi'** 'dubitative particle') + **na** 'third plural realis past/present' (NB: only **na** is possible, no arguments or anything further may appear in the matrix clause).

As we see in (32) and structural constraints on other Group Two ISCs, they are also more restricted than Group One ISCs.

(33)	**mo**	**xi**	**xirao'**	**mam'**	**caca**	**-parut**	**pain**
	conditional	INFL:irr	mark	before:going	3pm	-1pexl	pain:3n
	papel	**xi'**	**na**				
	letter	dubitative	3s:rp/p				

'If they had written us a letter before going,... (but) it (is) (not).'

(34)



(A) *Desiderative* (p69ff)

(35) Function: To express desire of a particular discourse participant.

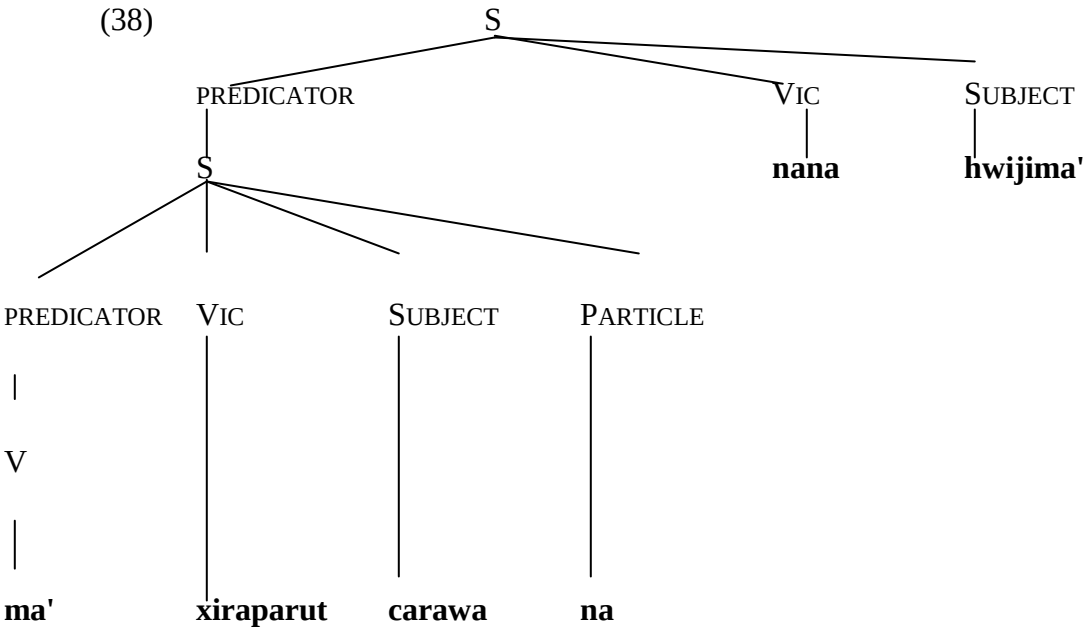
(36) Structure = ISC predicator (verb + irrealis VIC + **na** 'consent') + realis past/present + (optional) arguments

(37) **Ma'** **xira** **-parut** **carawa** **na** **nana** **hwijima'**.

exist 3s:irr -1pexcl animal consent 3p:rp/p children

'The children wished they had food (literally: *"'Food should exist to us consenting', the children."*

(38)



(B) *Refusal* (p71ff)

(39) Function: The use of these sentences is very limited. They have only been recorded in conjunction with a specific type of negation sentence (Everett & Kern, 71ff).

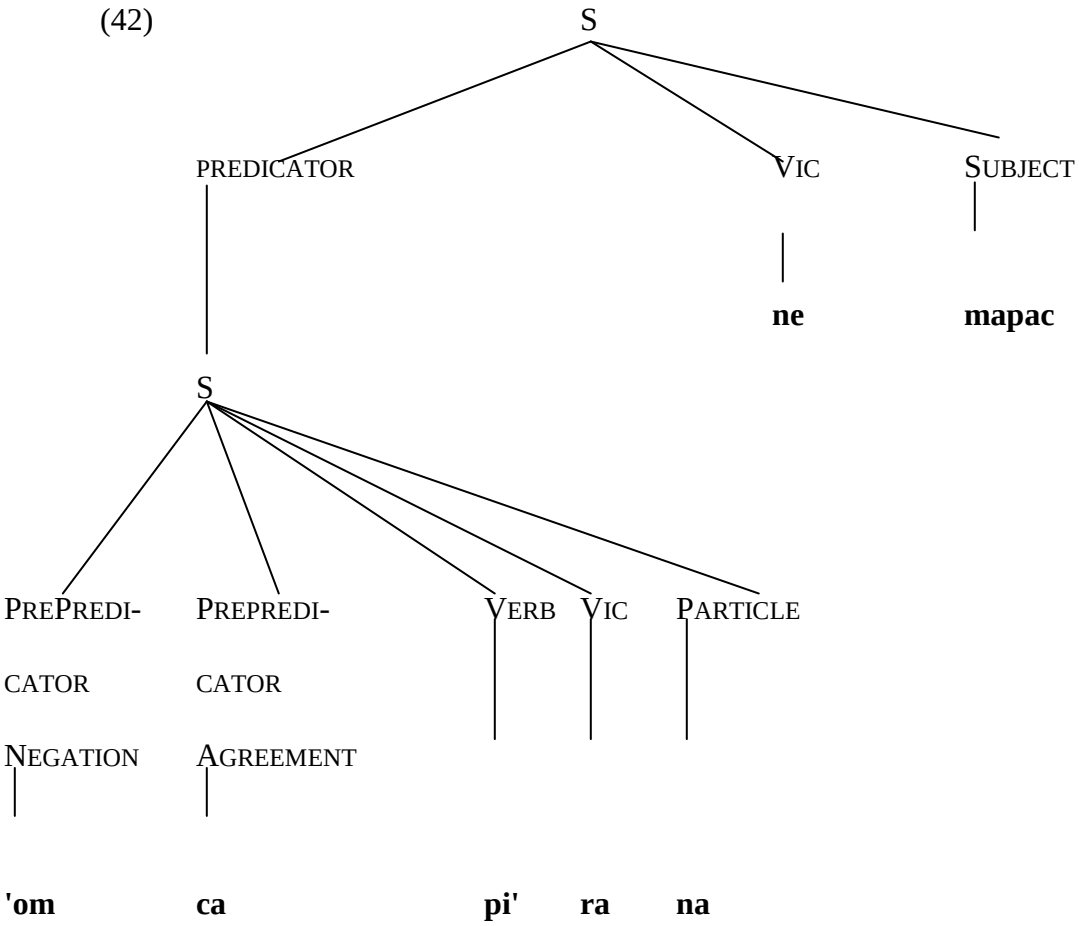
(40) Structure = **'om** 'not exist' + INFL **ca** rp/p + ISC predicator (v + 2s rf VIC +**na** 'consent') + Tenseless VIC + arguments (at least one is obligatory)

(41) **'Om** **ca** **pi'** ***ra*** ***na*** **ne mapac**.

not:exist INFL:n:rp/p finish 2s:rf consent 3n corn

'The corn will never finish (lit: 'The corn does not consent (when it is told) 'Be finished'.)

(42)



Like verbalized desiderative sentences, in verbalized refusal sentences the verb **na** 'to consent' appears as a sentence final modifier of the embedded S. But while desideratives may only use irrealis VICs, refusals are more restricted yet, using only second person singular realis future VICs. Again, refusal ISC predicators are very limited

in use. Barbara Kern has only recorded them in her fieldnotes embedded in what Everett and Kern refer to as COMP negation sentences, as illustrated in the example and indicated by the formula (that is, those with an initial negative operator, usually **om**). But this is interesting in any case since they appear in a position otherwise never permitted for subordinate clauses and reserved exclusively for verbs and ISC predicators. We have no examples of NP objects in the ISC refusal predicator. And since they are limited to second person, they have no NP subject either. The second person embedded ISC subject must be co-referential (in the real world, not syntactically bound by since there is no overlapping of grammatical features) with the matrix subject. Primary stress falls on the last syllable of the derived predicator, i.e. **na** 'to consent'. The form of the ISC refusal predicator, especially with the presence of **na**, has not been observed in our corpus as a stand-alone sentence, like other sentences in this Group, but unlike those in Group One, all of which are fine as stand-alone sentences (modulo stress placement and semantics).

(C) *Emphatic* (p72)

(43) Function: Used for expressing strong emotion, surprise, exclamation.

(44) Structure = ISC predicator (verb + third singular realis past/present VIC + **na** 'consent' + **ma'** 'that:prox:hearer') + second singular realis past/present VIC + **xi'** 'dubitative'

(45) **Mija** **na** **na** **ma'** **hwe**

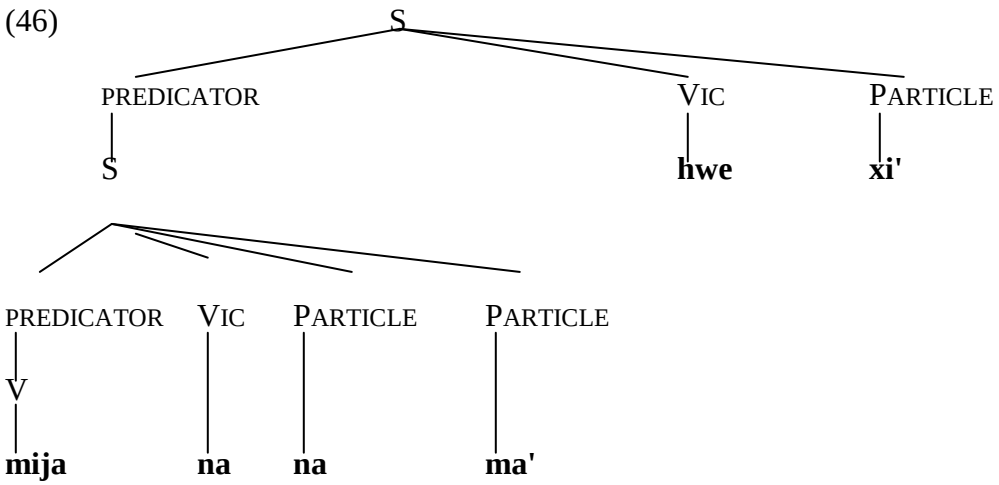
much 3s:rp/p consent that:prox:hearer 2p:rp/p

xi'.

dubitative

'It is really too much!' (literally: *'It is a lot consenting (say).'*)

(46)



Emphatic sentences are similar to verbalized desiderative and refusal sentences, in that they all employ the verb **na** 'to consent' in their ISC predicators. The choice of the singular or plural VIC in the matrix clause is based on the number of addressees. A loose illocutionary force translation for the entire clause would be something like 'You can say that again' or 'You'd better believe it'. Again, primary stress falls on the particle **na**.

(D) *Sequential* (p72ff)

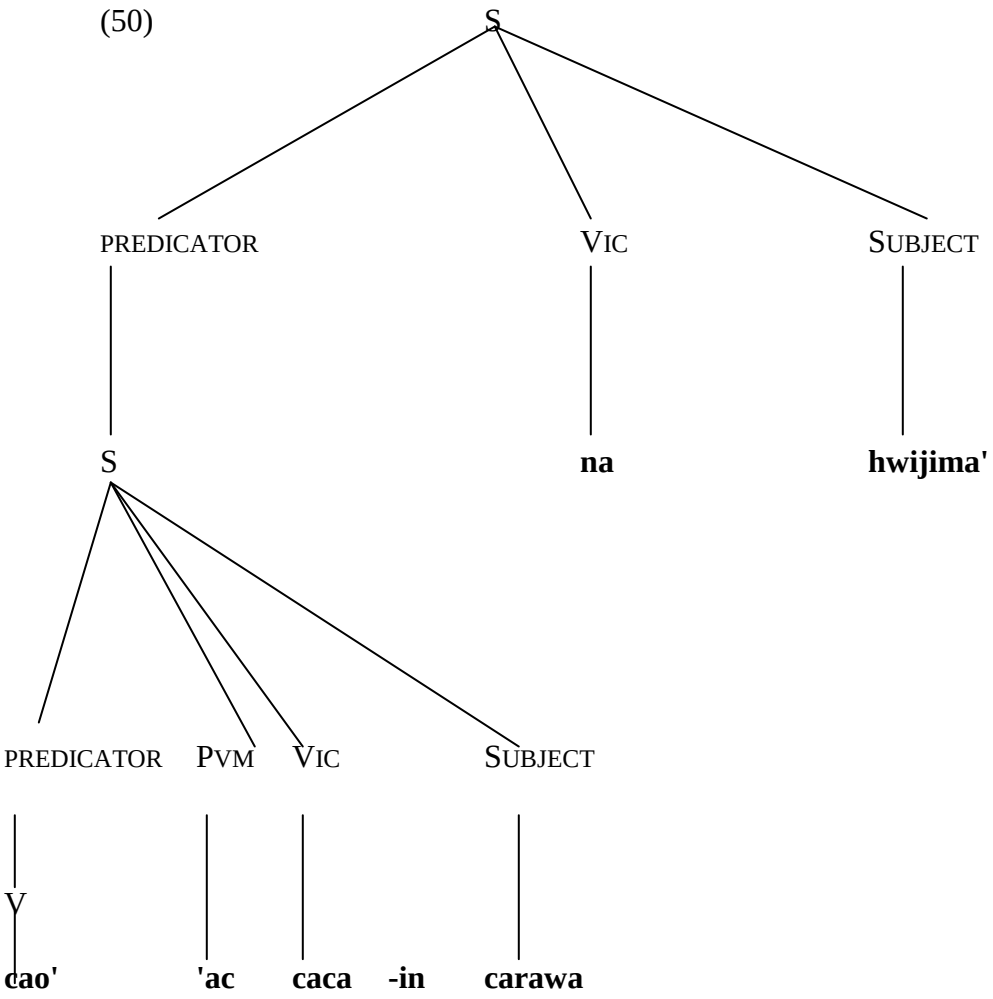
(47) Function: These are used to indicate immediate temporal sequence or progression.

(48) Structure = ISC predicator (verb + **ac** 'travel' or **mao** 'go' + tenseless/reflexive VIC + (optional) Object NP + (optional) postverbal modifier **ma'** 'that:proximate:hearer') + third singular tense VIC + (optional) matrix argument and adjunct NPs

(49)	**Cao'**	**'ac**	**caca**	**-in**	**carawa**	**na**	**hwijima'**.
	eat	travel	3pm	-3n	animal	3s:rp/p	children

'Then the children ate food.' (literally. (Then) it (was that) the children ate food.')

(50)



Because the ISC predicator of a sequential sentence obligatorily lacks tense, it is like other Group Two sentence types in not being able to serve as a grammatical stand-alone sentence. The choice of **ac** or **mao** in the ISC predicator seems to be based on idiolectal preference. Sequential sentences are common ways to begin narrative discourses in Wari'.

(E) *Comparative* (p74ff)

(51) Function: To express an individual's general perception of an appearance or similarity.

(52) Structure = ISC predicator (**'ac** 'like' + INFL + optional verb + VIC) + third singular realis past/present VIC (= **na**) + optional object and/or subject NP + optional particle.

(53) **'ac** **ca** **toc** **ca** **-in** **tocwa** **ma'**

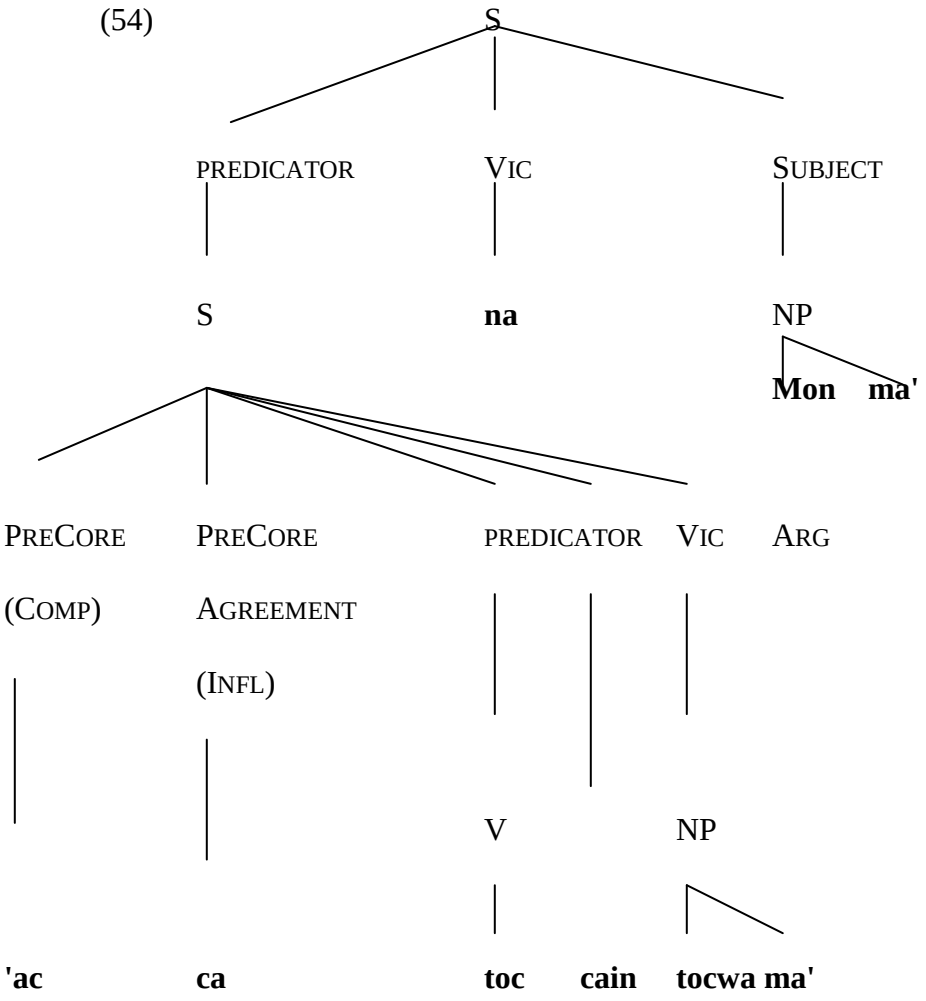
like INFL drink 3sm -3n corndrink that:prox:hearer

na **Mon** **ma'**

3s:rp/p m:name that:prox:hearer

'It seems like Mon drank corndrink.'

(54)



3.2.2. Compounding of Wari' ISCs

Interestingly, ISCs can be embedded in or combined with other ISCs and verbs. This is a very important observation because multiple embeddings are otherwise prohibited in the language, even with the verb 'to tell/say', illustrated in (55a) and (56). Sentence (55a) is ungrammatical because it has two embedded clauses, whereas (55b) is fine:

(55) a. ***Tomi nana**$_{i}$ **'i' 'iri' mapac**

speak 3p:rp/p tear 1pincl:rp/p corn

'ep xi' capam' 'oro narima'$_{i}$**.**

grind:corn 1pincl cornbread coll woman

'The women said 'we shucked corn' (and/so that) 'we will make cornbread'.

b. **Tomi' nana**$_{i}$ **'i' 'iri' mapac**

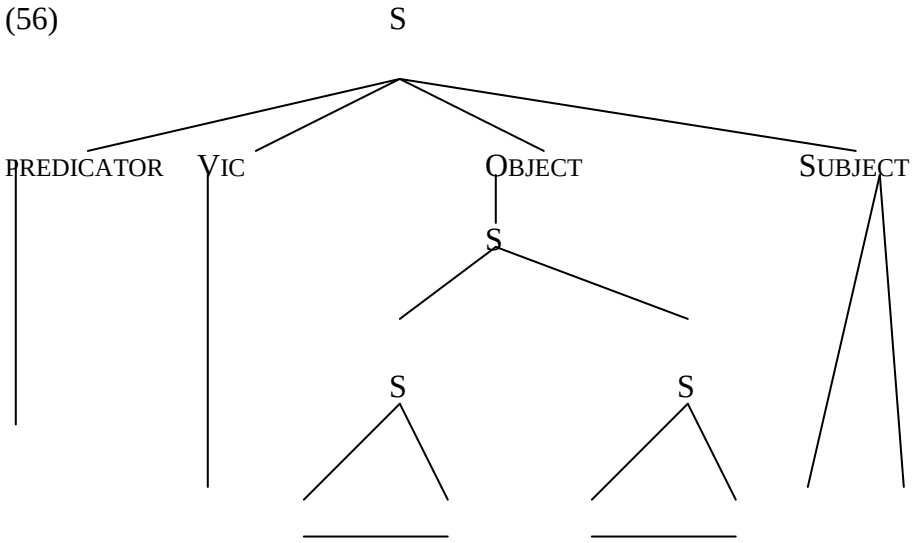
speak 3p:rp/p tear 1pincl:rp/p corn

'oro narima'

coll woman

'The women said 'we shucked corn'.

(56)



tomi **nana$_i$** **'i' iri' mapac** **'ep xi' capam** **'oro narima'**

Example (55a) has two Ss embedded (see (56)) and so is ungrammatical. (55b) is fine, however, since it has only one level of embedding. This is quite different from what we find with multiple ISC embeddings, since the latter are grammatical and very common, just as compounding of verbal predicators is common. This is exemplified in (5) above and (57) below:

(57) ***Pan'*** ***'am*** ***ta'*** **tara** **xa'**

fall:s be:lost:s 1s:rf 3s:rf younger:brother:1s

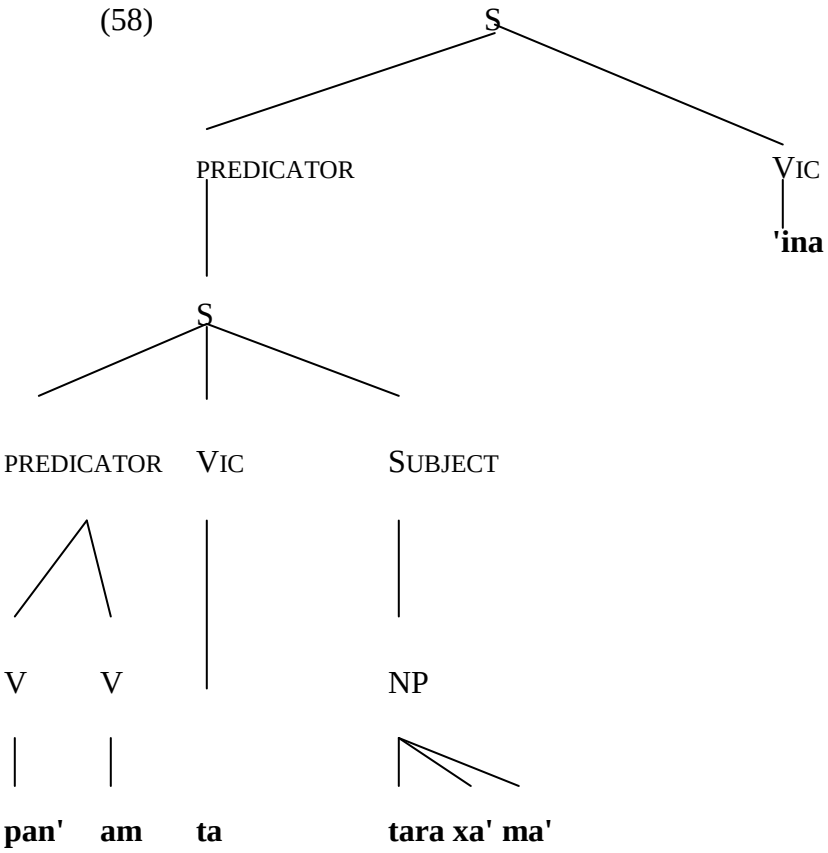
ma' **'ina**

that:prox:hearer 1s:rp/p

'I (say) my younger brother was going to get lost.' (lit. 'I (say) my younger brother will probably (say), 'I will get lost'.)

The tree structure of the example in (57) is given in (58):

(58)



Additional examples of ISC predicators and compounding are given in (59) – (64):

Direct Speech and Sequential ISCs

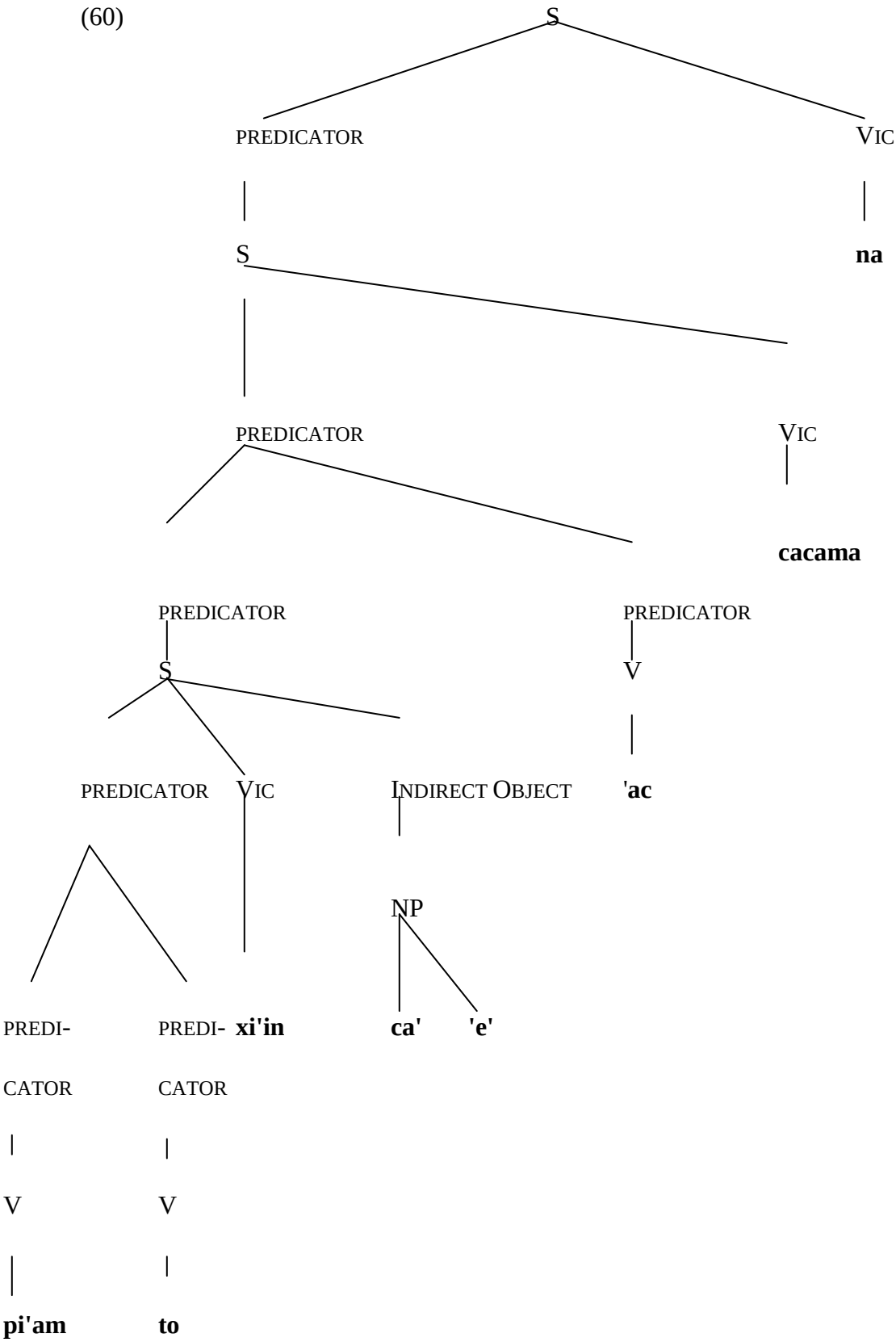
(59) **pi'am to xi' -in ca' 'e' 'ac cacama na**

sleep be:at:pl 1pincl:rf -3n this:n emph travel 3pf

3s:rp/p

'"We will sleep here then", they (said).' (Literally: *'It was (said) "We will sleep here then."'*)

(60)


S
PREDICATOR
VIC
S
na
PREDICATOR
VIC
cacama
PREDICATOR
PREDICATOR
S
V
PREDICATOR
VIC
INDIRECT OBJECT
'ac
NP
PREDI-
CATOR
PREDI-
CATOR
xi'in
ca'
'e'
V
V
pi'am
to

(61) **pan'** **'am** **ta'** **tara** **xa'** **ma'**

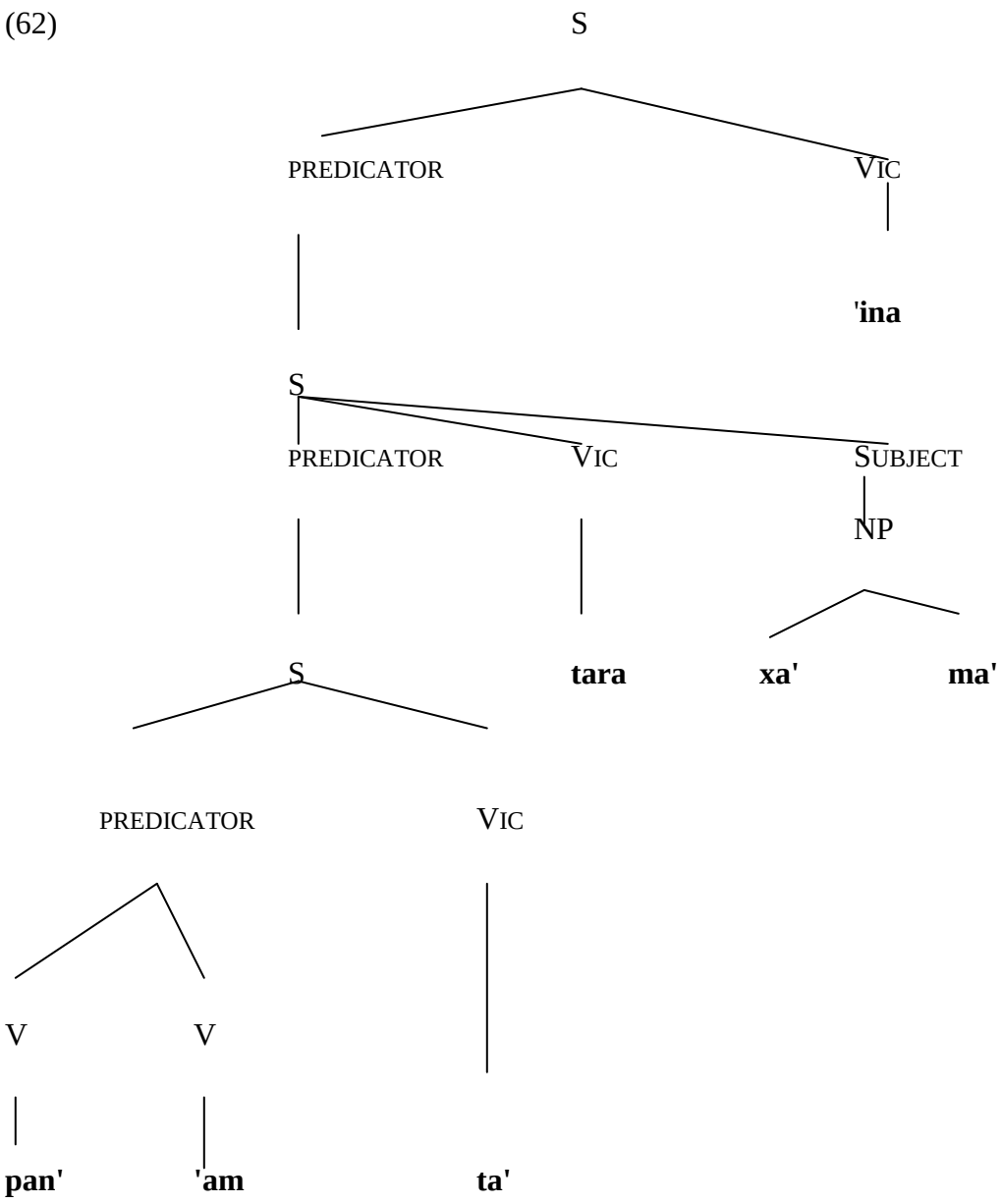
fall:sg be:lost:sg 1s:rf 3s:rf younger brother that:prox:hearer

'ina

1s:rp/p

'I thought my younger brother was going to get lost.' (literally: 'My younger brother will probably (say), "I will get lost", I (thought/said).'

(62)


S
PREDICATOR
VIC
'ina
S
PREDICATOR
VIC
SUBJECT
NP
S
tara
xa'
ma'
PREDICATOR
VIC
V
V
pan'
'am
ta'

(63) **ac** **ca** **taramaja** **ra** **'ac** **ca** **-pa** **na**

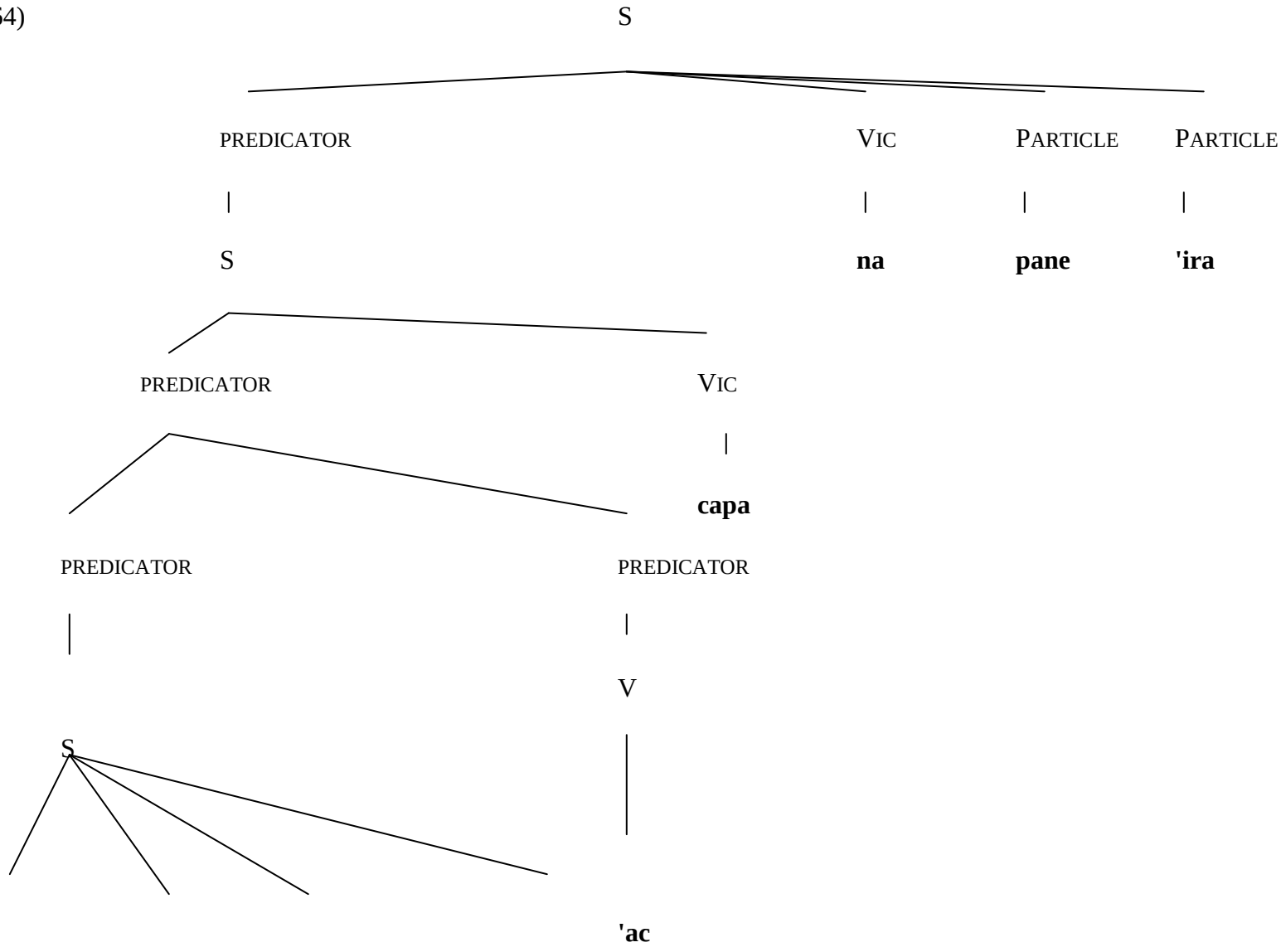
like INFL:rp/p work 2s:rf travel 3sm -1s 3s:rp/p

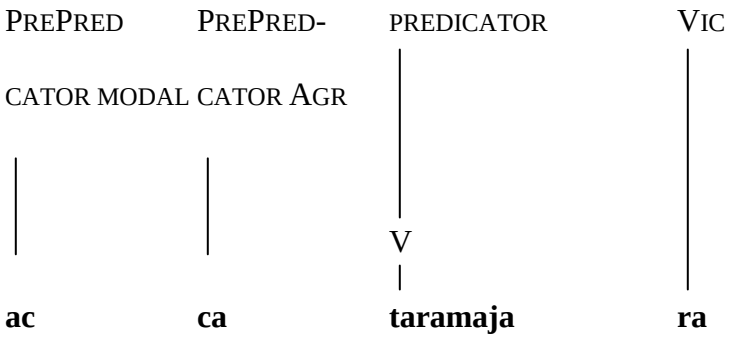
pane **'ira**

prog:past rem:past

'Then it seemed like he said to me, "work!"' (literally: '(Then) it (was that) it seemed like he (said) to me, "work!"').

(64)


S
PREDICATOR
VIC
PARTICLE
PARTICLE
S
na
pane
'ira
PREDICATOR
VIC
capa
PREDICATOR
PREDICATOR
V
S
'ac


PREPRED
PREPRED-
PREDICATOR
VIC
CATOR MODAL CATOR AGR
V
ac
ca
taramaja
ra

As these examples show, in spite of otherwise prohibiting embedding, recursion of (both subordinative and iterative) ISC structures are common in Wari'. This asymmetry in the distribution of embedded clauses, based on their function as Argument clauses vs. predicator (ISC) clauses needs to be accounted for. The proposal of section 5 below is that PREDICATORs in Wari' may combine or be subordinated, according to certain constraints of RRG.

3.2.3. Mixed properties

Let us turn now to consider in more detail the mixed properties of these constructions, beginning with their word-like properties. These are summarized in (65):

(65) Word-like features of ISC predicators:

(a) The predicator occurs in the clausal position otherwise occupied exclusively by the verb.

(b) Only the last syllable of the predicator carries stress, as though it were a single word (see (68) below).

(c) The final syllable of the ISC predicator bears default primary sentence stress, just as the verb does in other sentence types.

(d) The predicator of an ISC may undergo predicational modification like a verb.

(e) The predicator can undergo compounding just like any other verb.

(f) There is no other potential predicator/verb in the matrix clause other than the ISC predicator, i.e. it seems to be *the* matrix predicator.

(g) ISC predicators are the only examples of multiple clausal embeddings in the language, but combine in the same position as the verb combines with other verbs (clause-initial position). And ISC predicators also combine with other verbs, just as all verbs do.[xvi]

Let's take each of these up in more detail. First, (65a), Wari' ISC predicators behave like words with respect to sentence constituent order. As all the examples in this paper illustrate, Wari' sentences may begin with either a mood marker (i.e. a sentence-initial, preverbal word which indicates interrogation, negation, or other non-positive or non-indicative mood), a verb, or an ISC predicator. The only material that may precede the verb or the ISC predicator is a 'mood marker'. The second constituent of the clause is always tense. When a verb is in initial position, the tense is marked on the postverbal VIC, again indicating perhaps that VP is not a constituent, as per RRG. But when a mood-marker is in initial position, then tense may appear on its own or in conjunction with a preverbal agreement morpheme which indicates the gender of the sentence-initial mood marker (e.g. neuter for 'why' or 'not', masculine for 'who' masculine or feminine for 'who' feminine, see examples (6)-(9) above). If we treat ISCs as though they occupied the same structural position as the verb, the initial statement of Wari' constituent order in (66) could be simplified to that in (67):

(66) Wari' constituent order:

a. Wari' sentences begin with a verb, an ISC predicator, or a preverbal mood marker;

b. The VIC always follows the verb or the ISC predicator in the Wari' sentence.

c. Tense is always placed in second position in the sentence.

(67) Wari' constituent order, simplified:

a. Wari' sentences begin with a predicator or a mood marker;

b. VICs follow the predicator.

c. Tense is always placed in second position in the sentence.

Wari' ISC predicators are stressed like single words, (65d) and (65e).[xvii] The Wari' stress rule is given in (68), taken from (Everett and Kern (1997, 416)). Stressed syllables are indicated by italics, in (69)-(72):

(68) *'Within the sentence, the final syllables of major lexical categories are stressed. Primary stress in the sentence normally falls on the final syllable of the verb, with final-syllable stress on other lexical categories interpreted as secondary stress.'*

Stress in matrix clauses, with stressable constituents – words and ISC predicators – in brackets.

(69) [***Quep***] **[na** **-*in*]** **[xi*rim*]** **[*te*]** **[pa*ne*]** **[*ta*]**.

do 3s:rp/p -3n house father:1s rem:past emph

'My father made a house long ago.'

(70) [***Ten***] **[*ta*]** **[*wao'*]**.

weave pass:3s type of basket

'Baskets are woven.'

(71) **[*Mi'*]** **[non** **-*on*]** **[*con*]** **[*hwam*]** **[hwiji*ma'*]** **[*mon*]**

give 3p:rp/p -3pm prep:3sm fish children coll

[tara*ma'*].

man

'The men gave the children fish.'

(72) **[Hwara'** **'opa** **tar*a*** **ma']** **[*hun*]**

big(sg) strength-1s 3s:rf that:prox:hearer hwe-on

2p:rp/p -3sm

[pan*xi* -*ta'*]?[xviii]

child -1s

'Do you think my son is strong?' (lit: 'Do you (think) of my son, "He is probably strong"?')

Looking at stress placement in non-ISC subordinate clauses, we see that stress in subordinate clauses is placed on the last syllable of every grammatical word, just as in matrix clauses (but the first member of a compound word, as **'on** 'whistle', in (75), is also not stressed).[xix]

(73) [$_S$ **Querec** ***wet*** **na** ***-in*** **[$_S$** ***ca*** **ma*qui'*** ***ne***
see take:care:of 3s:rp/p-3n [rp/p come 3n
capija ***-con*** **Co*wo'***].
mouth -3sm m:name
'He paid (close) attention to where Cowo's voice was coming from.'

(74) [$_S$ ***Ma'*** ***na*** wa***ram*** [$_S$ ***ca*** ***cao'*** qui***wo'***]].
exist 3s:rp/p monkey:species n:rp/p eat arrow
'There is a waram monkey that breaks (eats) arrows.'

(75) [$_S$ **'On** ***'ac*** ***ca*** ***na*** [$_{NP}$ **wa*ri'*** [$_S$ ***co*** ***'om***
whistle travel 3sm 3s:rp/p person m/f:rp/p not:exist
pa' ***quem***]$_S$]$_{NP}$]$_S$.
kill ref
'Then a person whistled who did not kill.'

(76) [$_S$ ***Ma'*** ***je*** ***na*** **ta*hot*** **[$_S$** ***ca***
that:prox:hearer emph:3n 3s:rp/p palm:shelter n:rp/p

tao'	***pe***	**caca**	**-on**	***Jao* To*'a ma'***]].[xx]
close	be:at(sg)	3pm	-3sm	m:name that:prox:hearer

'There was the palm shelter where they closed in Jao To'a.'

So ISC predicators, because they bear only a single stress, are not stressed like other subordinate clauses. In addition to individual constituent stress, Wari' also has a primary sentence stress, (65c) (Turner 2006). This primary stress is always placed on the final syllable of the verb or the ISC predicator. If the ISC predicator is analyzed as the verb, or if the verb and the ISC predicator can otherwise be collapsed into a single category, e.g. predicator (or NUCLEUS, see section 5), then primary stress placement can be stated without a disjunction.

Another word-like characteristic of Wari' ISC predicators relevant here is pre- and postverbal modification, a type of verb-compounding, (65d). As Everett and Kern state (p139), 'The notion of simple adverbial modification is expressed by verb compounding. What we call pre- and postverbal modifiers (**pvm**s) immediately precede or follow a verb root, producing a compound verb.' The distinguishing characteristic of verbal modifiers is their inability to occur as simple, noncompounded verbs. This turns out to be quite important for my analysis because **pvm**s are otherwise strictly limited to verbs and may not co-occur in other circumstances with nonword-level categories. The reader is referred to Everett and Kern (139ff) for more details on verbal modification in Wari'.

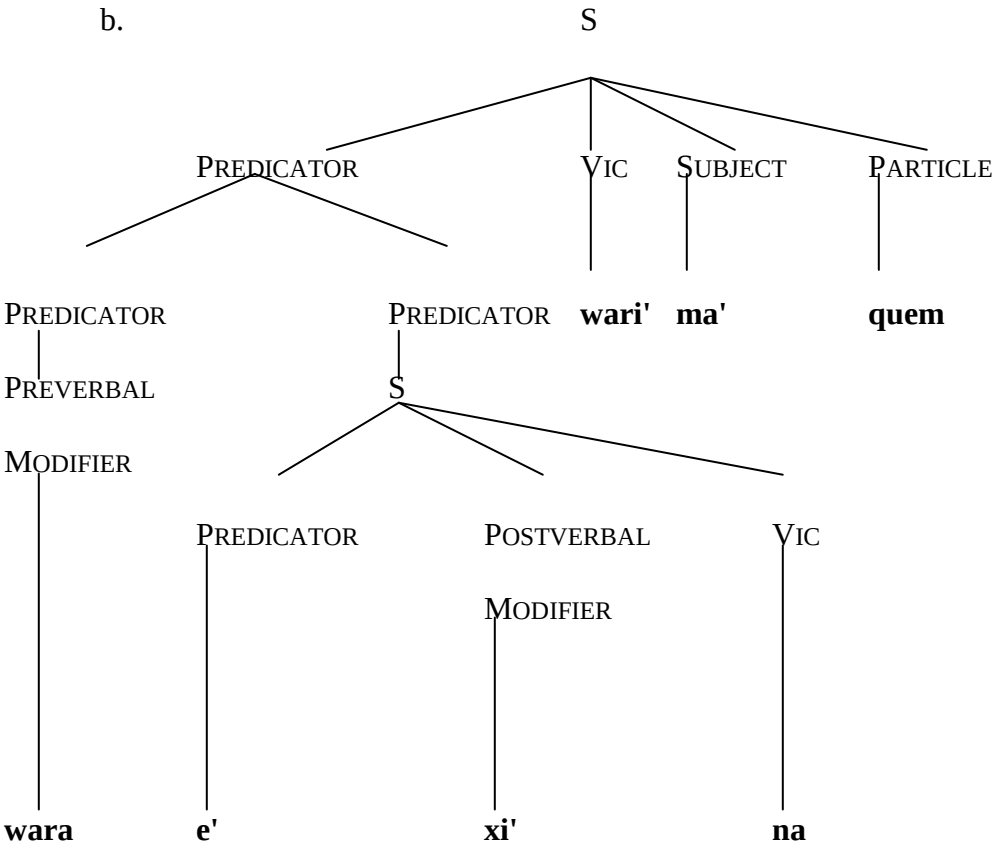
An example of a preverbal modifier in non-ISC compound verb forms is given in (77). Postverbal modification is given in (72) above.

(77) a. **Wara maji e' xi' na wari' ma' quem.**

already let's:go emph when 3s:rp/p person that:prox:hearer ref

'When that person already (said), "Let's go".'

b.



Preverbal modifiers are also the most common way that Wari' forms causatives (Everett and Kern, 317ff) so that by showing ISC predicators with preverbal modifiers, we simultaneously show that in form at least they act like verbs with respect to causativization as well. If it turns out (something that needs to be verified in the field)

that they do not undergo the full range of causativizing structures as simple verbs, this will likely be a semantic rather than a formal constraint.

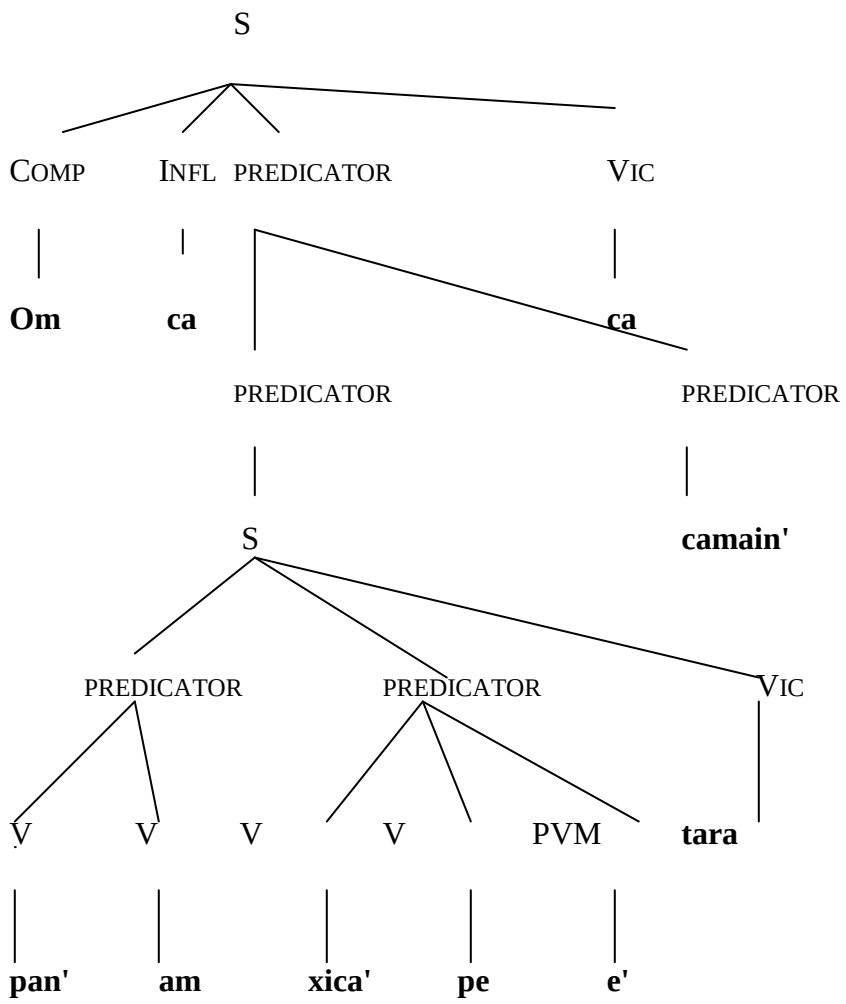
In (78) we see an example of a verb compounding and negation with an ISC predicator:

(78) **Om ca pan' am xica' pe e' tara camain' ca**.

neg INFL:rp/p fall:s lost:s alone be:s only 3s:rf at:all 3sm

'It isn't at all okay with him if even just one is lost.' (lit: *'He doesn't at all (say), "May just one be lost."'*)

(79)



In this example, **pan' am** is a compound verb, meaning 'to be lost', **xica' pe** is a compound verb, meaning 'to be alone', or as a post verbal modfier, it means 'only'. **e'** is a post verbal modifier that means 'only'. This is an important example because it strengthens the parallelism between verbs and ISC predicates, showing ISC predicates in non-initial clause position, following modal particles, just like verbs.

It is important to remember that pre and postverbal modifiers never appear as independent verbs and that they only appear in compounds. Thus when they occur with

ISCs, I argue that the ISC predicator must be seen as a nonphrasal element, the left member of a morphological compound, (65e).

Another important fact about ISC constructions is that they have no verb, (65f) and (65g). Unless we understand the content of the intentional state as the predicator of the sentence, ISCs lack predication, an unlikely conclusion. In this sense, ISC predicators behave like verbs, the major motivation for the type-shifting analysis of them in Everett and Kern as 'verbalized sentences'.

Let us now consider sentence-like characteristics of ISC predicators, summarized in (80):

(80) Sentence-like characteristics of Wari' ISC predicators

(a) Group One ISC predicators have the structure of fully productive clauses or sentences, manifesting internal WH-questions, FOCUS structures, and tree-structures typical of clauses and sentences.

(b) All ISC predictors are subject to constraints on reference ((81) and (86)) relative to the main clause which would otherwise violate the 'anaphoric island constraint' (Postal 1969).

The properties in (80) have not been accounted for by any previous analysis. The simultaneous sets of word and sentence properties are why the analysis proposed in Everett and Kern is inadequate. Since Everett and Kern analyses Wari' ISCs as verbs deriving from sentences, they should have only properties of words, not phrases. The Everett and Kern analysis fails to predict their *mixed* properties.

Consider first (80a), i.e. that these predicators have the internal syntax of fully productive clauses. That is, Group One ISCs are well-formed clauses on their own. This means that they are not modified syntactically to 'fit' into the embedded predicator position. Property (80b) indicates that their sentential properties are not inert, i.e. they have not been type-shifted, nominalized, verbalized, etc. They are constrained to interact referentially with constituents of the main clause.

To see this, consider first the restriction in (81):

(81) **Asymmetrical binding constraint**: an NP in the ISC (i.e. embedded) predicator can*not* be referenced on the matrix VIC (or, indeed, in any way in the matrix clause), but a matrix NP can be referenced on the ISC VIC.

This constraint is interesting because, although an NP in an ISC cannot be referenced on the matrix VIC, an NP in the matrix clause of an ISC may be referenced by either or both the matrix and embedded VICs. This binding constraint is asymmetrical in the sense that a higher nominal or affix cannot bind a lower NP (this formulation skips some technical details, but none that are crucial for the present exposition).[xxi] It is important, again, to recognize that this constraint is based on the referentiality of the NP in the embedded clause. Examples are:

(82) ***Ten*** ***ta'*** ***wi*** **ma**?
weave 1sg:rf mat 2sg.rp/p
'Are you going to weave a mat?' (lit: '"I will weave a mat" you (say)."

(83) a. ***Ten*** ***ta'*** ***wi*** **ma** **-in**?

weave 1sg:rf mat 2sg.rp/p -3n

'Are you going to weave a mat?' (lit: '"I will weave a mat" you (say)."

b. ***Ten*** ***ta'*** **ma** **-in**?

weave 1sg:rf 2sg.rp/p -3n

'Are you going to weave something?' (lit: '"I will weave somthing" you (say) with regard to it."

(84) ***Cao'*** ***xi'*** ***carawa*** **nana** **hwijima'**.

eat 1pl.:incl.:rf animal 3pl.:rp/p children

'The children will eat the food.' (lit: '"We will eat the food." the children (say) of it.')

(85) a. ***Cao'*** ***xi'*** ***carawa*** **nana** **-in** **hwijima'.**

eat 1pl.:incl.:rf animal 3pl.:rp/p -3n children

'The children will eat the food.' (lit: '"We will eat the food." the children (say) of it.')

b. ?***Cao'*** ***xi'*** **nana** **-in** **hwijima'.**

eat 1pl.:incl.:rf 3pl.:rp/p -3n children

'The children will eat.' (lit: '"We will eat something." the children (say) with respect to it.')

As (83b) and (85b) show, the matrix clause does allow its VIC to reference an unspecified embedded object, in the sense of 'with regard to', though such examples seem strained (native speakers accept them only if they can think of a sensible context and must think hard to do so). But matrix clauses may never have object agreement for an overt NP embedded object. Such examples indicate that nominals within ISC predicators are referential, not merely inert components of idioms, 'desentential verbs', etc. By way of comparison, consider the English example *Bush doesn't like anti-Bushites*. This example is fine, as we expect, because the embedded example of *Bush* is part of a word and thus cannot bind out of its containing word, which would violate Postal's (1969) *Anaphoric Island Constraint*, in (89) below. The contrast between matrix and subordinate VICs would be unexpected, again, if the lower VIC were merely part of a word. Such constraints show that internal constituents of the embedded ISC predicator are referentially visible to the matrix clause.

There is additional referentiality evidence for clausal status of ISC predicators, in the form of a second constraint, (86):

(86) **Obligatory Clitic Agreement Constraint**: If a third-person matrix object is referenced on the matrix VIC then it is also referenced on the embedded VIC (relevant portions of the clause are in italics, with cosubscripting in the repeated examples below):

(87)	**To'**	**ta**	***-on$_i$***	**ma**	**-on$_i$**	***wom$_i$***?
	hit	1sg.:rf	-3sg.m.	2sg:rp/p	-3sg.m.	cotton

'Are you going to wash clothes?' (lit: '"I will hit them", you (say) of clothes?')

(88)	a.	****To'***	**ta**		**ma**	**-on**	**wom**?
		hit	1sg.:rf		2sg:rp/p-	3sg.m.	cotton

'Are you going to wash clothes?' (lit: '"I will hit", you (say) of clothes?')

b.	**?To'**	**ta-on$_i$**		**ma**	**wom$_i$**?
	hit	1sg.:rf	.	2sg:rp/p	cotton

'Are you going to wash clothes?' (lit: '"I will hit", you (say) of clothes?')[xxii]

The referentiality constraints in (81) and (86) demonstrate that Wari' ISC predicators have characteristics of sentences, in addition to their word-like properties. If the Wari' examples in (87) and (88) in fact involved coreference between a free word and a part of a word (i.e. analyzing the ISC predicator as merely a word), the

ungrammaticality would be unexpected. As we see in (89) below, this is so because the Anaphoric Island Constraint prohibits binding into a word. Before we consider some remaining aspects of ISCs, let us put these referential facts into context.

If ISC predicators were nothing more than 'desentential verbs', as proposed in Everett and Kern and Everett (1998), their referentiality would violate Postal's (1969) 'anaphoric island' constraint in (89):

(89) **Anaphoric Island Constraint** (AIC): "... certain types of linguistic form become what I shall call *anaphoric islands*, where such an entity is a sentence part which cannot contain an anaphoric element whose *antecedent* lies outside the part in question and which cannot contain the antecedent structure for anaphoric elements lying outside." [emphasis Postal's, DLE]

As an example of what Postal goes on to call 'outward anaphora' (Postal 1969: 206), consider the pair in (90) (Postal, 213):

(90) a. Followers of McCarthy$_{i}$ are now puzzled by his$_{i}$ intentions.

b. *McCarthy$_{i}$ites are now puzzled by his$_{i}$ intentions.

Postal observes that 'inbound anaphora' is also prohibited:

(91) *The grolf wanted to visit Max. (Where 'grolf' means 'one who has written the biography of ___', Postal (1969, 208).

Example (91) is bad because *Max* is prohibited from binding into the word *grolf* thus leaving *grolf* with an open variable. This rules out in general words which must have a component of their meaning determined by binding.[xxiii] The mixed properties of Wari' ISCs force us to conclude that they differ significantly from better-known cases of complex predicators. For example, these are not merely periphrastic forms (e.g. Everett (2005a) and Ackerman & Stump (forthcoming)) because (i) there is no intersection of features, nor distributed exponence, as might be expected if these were but another example of 'periphrastic morphology' and (ii) there is no paradigm-like semantic 'drift' or specialization (see Everett (2005a) for just this type of 'drift' in Wari' periphrastic pronouns). On the other hand, they do not fit the normal understanding of complex predicators because they are non-compositional in that the meaning of 'to think/to say' is not present in any of their parts or any combination of those parts, it 'emerges' from the structure as a whole. Moreover, they do not fit the understanding of complex predicators developed in Ackerman and Webelhuth (1998) because they violate the constraint of 'morphological integrity' which prohibits syntactic word formation and which AW claim to be inviolable.

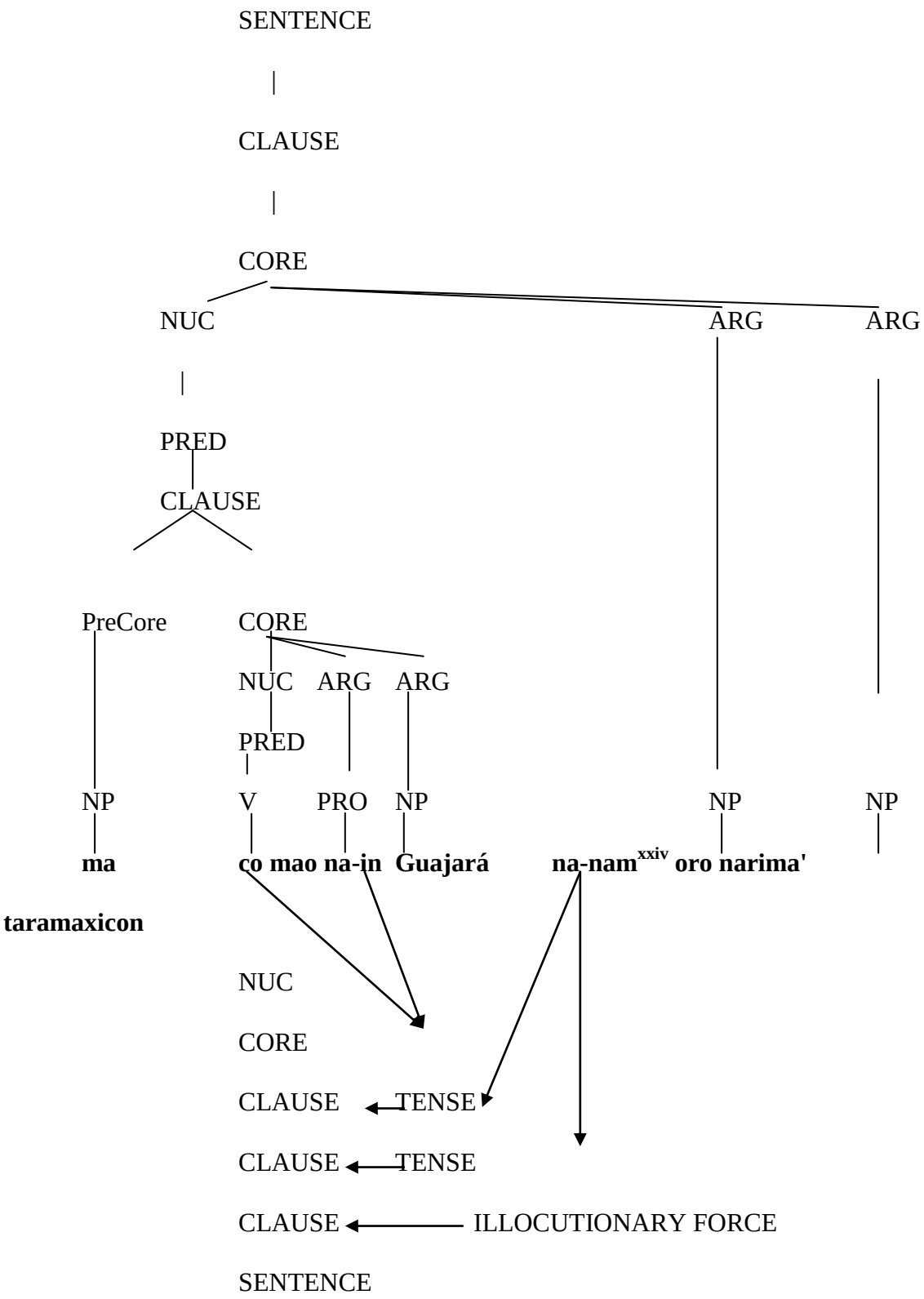
We see then, that Wari' ISC predicators are quite unusual. I now want to propose an analysis of them in terms of Role and Reference Grammar, in which their behavior is easily understood, as it turns out. We return in section 5 to consider the implications of this analysis for other theories.

4. Analysis

The principal claim of my RRG analysis of Wari' ISCs is that the Wari' NUC may dominate a clause. So consider the representation of a Wari' sentence like (94), with the structural analysis in (95):

(94) **Ma'** **co** **mao** **na** **-in** **Guajará**
that:prox:hearer m/f:rp/p go (sg) 3s:rp/p -3n Guajará
na **-nam** **'oro** **narima'** **taramaxicon**.
3s:rp/p -3pf collective woman chief
'"Who went to Guajará?" (said) the chief to the women.'

(95)


SENTENCE
CLAUSE
CORE
NUC
ARG
ARG
PRED
CLAUSE
PreCore
CORE
NUC
ARG
ARG
PRED
NP
V
PRO
NP
NP
NP
ma
co mao na-in
Guajará
na-nam
xxiv
oro narima'
taramaxicon
NUC
CORE
CLAUSE
TENSE
CLAUSE
TENSE
CLAUSE
ILLOCUTIONARY FORCE
SENTENCE

This analysis thus implies that Wari' is not, properly speaking, a VOS language, but, rather, is a NUCleus-initial language, or, even better, *NUA* (Nucleus, Undergoer, Actor, to use RRG terminology). This proposal in fact takes us some way towards an account of the Wari' facts. Consider first the fact that VICs must immediately follow either the verb or the ISC predicator, but nothing else. We can express this by (96), referring to NUC instead of Verb:

(96) **Wari' Inflectional Clitic Placement**: Wari' inflectional clitics follow the NUC.

Because Wari' sentences are (under the RRG analysis) NUC-initial, rather than V-initial, we immediately account for points (65a), (65e), and (65f) above.

For example, (65a) (the embedded sentence occurs in the verb position of the matrix clause) is accounted for because both the verb and the ISC predicator are in the NUC position, not in a 'verb position' per se. (65e) (there is no other potential predicator/verb in the matrix clause) follows because a sentence does not need a *verb*, but, rather, a NUC. And (65f) (the inflectional material must follow the embedded sentence) follows automatically from the statement of inflectional clitic placement in (96).[xxv]

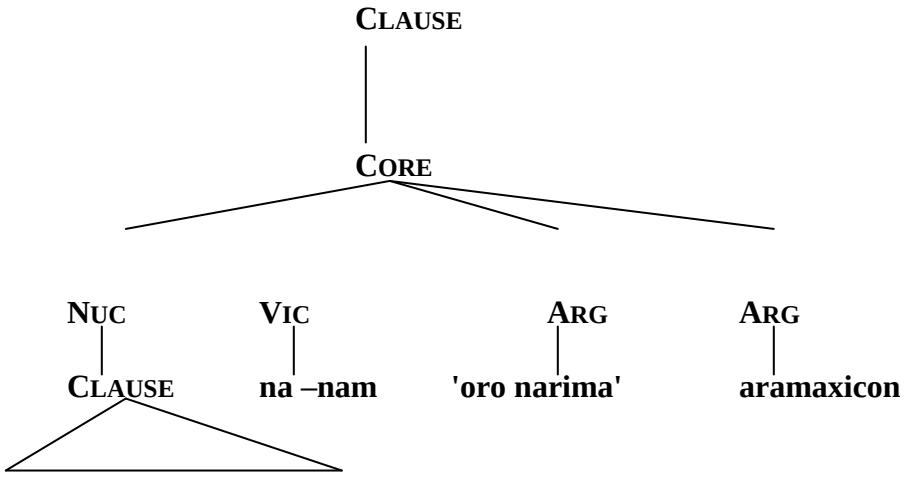
These results, providing a nearly complete analysis of the word-like characteristics of Wari' ISC predicators, free us from the problematic consequences of the claim made by Everett and Kern (6ff; 39ff) that the embedded sentence predicator of an

ISC has undergone a process of 'verbalization'. By the analysis here, ISCs do not involve syntactic inputs to the morphological component, since the embedded sentential predicator of the ISC is not claimed to be a word, but a NUC.

To sum up, RRG requires a NUC node for all clauses. This node is not required to dominate any particular syntactic category, nor is it restricted exclusively to word-level units. This means that NUC independently allows for, one might even say predicts, exactly the kind of sentential NUC phenomena observed in Wari'. Since the Wari' embedded sentential predicators are not claimed to be words in the RRG analysis, their phrasal properties require no additional comment and are completely expected. These embedded sentential NUCs are in fact clauses, in spite of the node under which they are embedded (i.e. their level of 'juncture' in RRG terms). Their apparent word-like properties are just their NUC properties. Intuitively, the idea that the NUC of a set of constructions like the Wari' ISCs, all closely related to direct speech quotatives, as we above, is unremarkable, at least from an RRG perspective. After all, the predication of a quotative, what the sentence is about, is the quote itself, i.e. the content of the utterance or thought cited. The advantage of the RRG analysis is that it, in effect, lets us have our cake and eat it too, by accounting for the conjunction of word and phrasal properties in Wari' ISC predicators without needing to claim that these are mixed categories at all, in spite of initial appearances.

Let's conclude this section by offering an account of stress placement, semantics, and compounding/postverbal modification in ISC predicators. Recall that the structures I am proposing for Wari' ISCs is like that in (97):

(97)



Ma' co mao_na –in Guajará

Since RRG independently requires a node with exactly the properties necessary to account for Wari' ISC clausal predicators, this strongly supports the RRG insight that the clause is exocentric and built around a semantic predicator mapped to the syntactic NUC node. There is no need for more complicated structures under the RRG account. With this simple structural proposal, we are prepared to consider how the single word stress, postverbal modification, compounding, postverbal modification, and the semantics of ISC predicators are derived in RRG.

Consider stress placement first. The normal rule of stress in Wari' is given in (68) above, repeated here as (98) (see also Turner (2006)):

(98) *'Within the sentence, the final syllables of major lexical categories are stressed. Primary stress in the sentence normally falls on the final syllable of the*

verb, with final-syllable stress on other lexical categories interpreted as secondary stress.'

Rule (98) will account for Wari' ISC predicator stress if we substitute NUC for verb, and then prohibit more than one level of stress per CORE constituent. To see this, consider how an example like (99) is stressed – the ISC Nucleus will be stressed on the last syllable (where italics = stress; **ma'** is not a stressable morpheme):

(99)	**Hwara'**	**'opa**	**ta*ra***	**ma'**
	big(sg)	strength-1s(strong)	3s:rf	that:prox:hearer
	hun		**panxi**	***-ta'***?
	hwe	-on	probably	*-interrogative*
	2p:rp/p-3sm child	-1s		

'Do you think my son is strong?' (lit: 'Do you (think) of my son, "<u>He is probably strong</u>"?')

Primary stress placement on NUC comes with no cost in an RRG analysis. This is because in RRG primary sentence stress on NUC is the default case, since Predicate Focus is the default focus (the new information of the clause is given in the predicate) and, therefore, it is common crosslinguistically for NUC to bear primary stress. Since the NUC is a single constituent, regardless of the complexity of the material that it dominates, the stress pattern of Wari' ISCs is exactly the pattern that would be independently expected in RRG.

In RRG, semantic interpretation derives from LINKING RULES that connect lexical, syntactic, pragmatic, and other components of RRG clausal structure. Wari' ISC predicators can be interpreted in RRG by adding a linking rule such as (100):

(100) In an ISC interpret the NUC as the content of a quote or intentional state of the subject.[xxvi]

Now let us turn to the relationship between compounding and multiple embeddings in Wari'. This relationship is a crucial link in the argument that ISC predicators are NUCs and it strongly underscores their similarity to verbs. The multiple embedded predicators discussed above are, as mentioned, unusual in Wari', because multiple occurrences of embedding in a single sentence do not otherwise occur in the language. That is, so-called complement clauses do not themselves allow embedding.[xxvii] Therefore, there is no Wari' equivalent to the English sentence in (101), even when the overt Wari' verb 'to say/to tell' is used, as we saw in (7) above:

(101) John believes that Bill thinks that John thinks that someone else likes him.

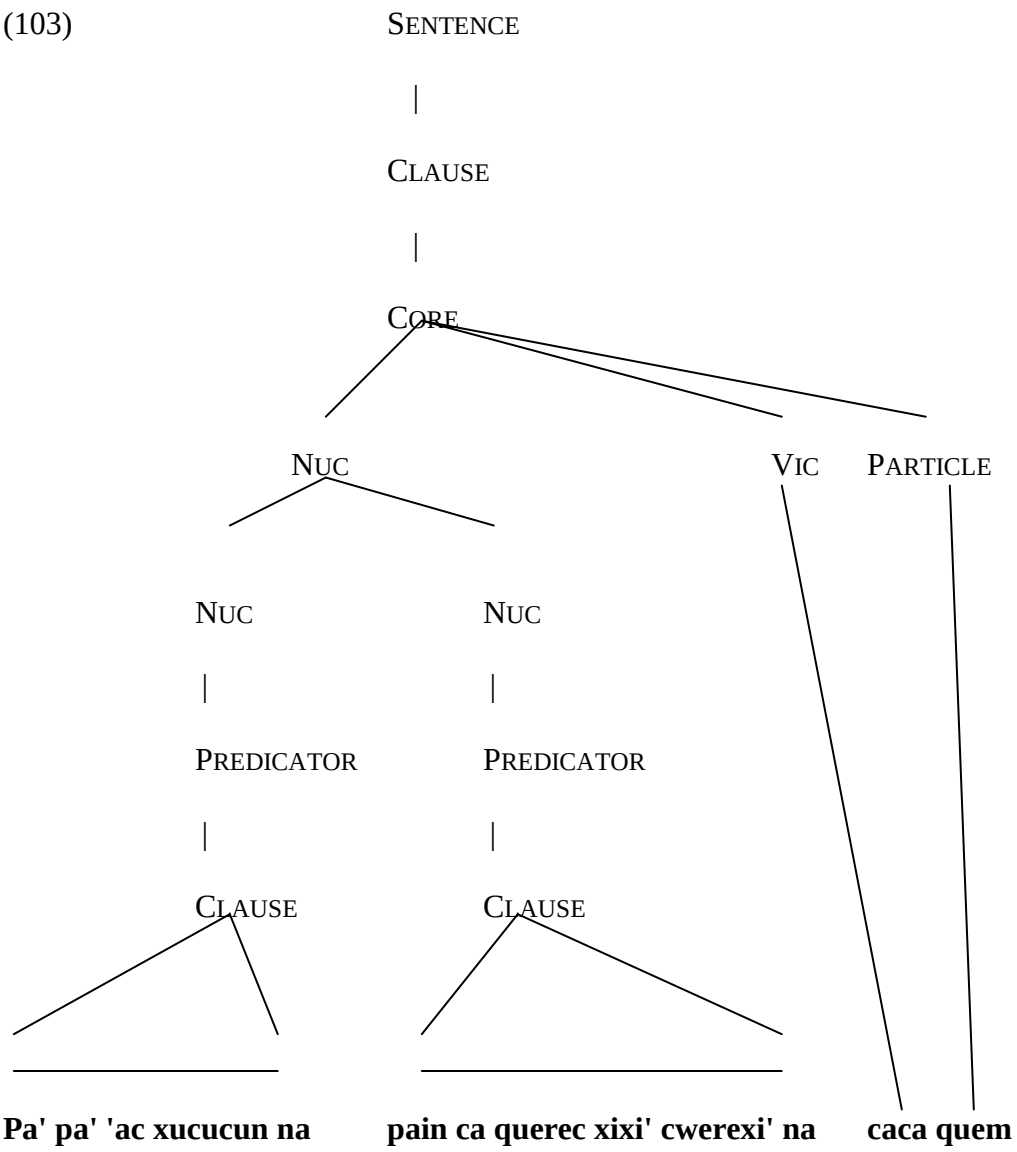
The RRG analysis is able to explain these facts straightforwardly. RRG breaks down what other theories label 'embedding' into a range of NEXUS and JUNCTURE types. JUNCTURE refers to the units involved in complex sentence constructions (what kinds of constituents are embedded), while NEXUS refers to the relationships among the units joined in complex constructions (see VVLP, 441ff for further details). Consider in this

regard the (simplified) RRG structural analysis of the multiply embedded sentence in (102):

(102) **Pa' pa' 'ac xucucun na pain ca'**
kill kill travel refl:3pm 3s:rp/p prep:3n INFL:n:rp/p
querec xixi' cwere -xi' na caca quem.[xxviii]
see 1pincl:irr body -1pincl consent 3pm ref

'Then they hit (lit:kill) each other because they want to see the body.' (lit: '(Then) it (is that) they hit (kill) each other because they (say), "We should see the body consenting."')

(103)



This type of clausal relation is termed Nuclear Cosubordination in RRG (Nuclear because there is a single NUC in the CORE, and Cosubordination, rather than Coordination, because the main Nuc is composed of multiple NUCs). It is particularly interesting to observe that Wari' manifests Nuclear Cosubordination independent of ISC constructions, as shown in the compounding example in (5) above, repeated here as (104) (see EK, 379ff):

(104) **Pan' corom mama'pin 'awi nana**

fall:s enter go:p completely completely 3p:rp/p

'They all fell into the water.'

The conclusion we are forced to is that although Wari' otherwise lacks more than one level of embedding of clausal complements, it can nevertheless accommodate multiple clauses in ISC predicator position, where these are analyzed by RRG as Nuclear Cosubordination, i.e. a form of compounding.

Before concluding this section, it only remains to say how this analysis handles Tense placement. As stated several times above, tense follows the first verb, modal word, or question word in the clause. This can now be understood by simply constraining tense to follow the first clause-level constituent, i.e. a modal word or NUC (EK, 43ff).

5. Alternative analyses

5.1. Covert verb of saying

One possible counteranalysis to the RRG analysis above would be to explore the hypothesis that Wari' ISCs *do* have a verb 'to say', but that it is not 'spelled out' in the phonology.[xxix] Then what I have been calling the ISC predicators are really nothing more than embedded clauses and there are no particular consequences for the theory of syntax other than that in some languages some epistemic verbs may go unpronounced. This simple alternative fails immediately, however. There are at least three important reasons to reject it, all of which we have seen above. First, complement clauses do not otherwise

occur in sentence-initial position. Rather, they occur in the position of the argument they represent (Subject, Object, etc.). Second, when complement clauses occur they trigger agreement on the VIC.

But the most serious (and obvious) objection to this counterproposal is that it simply does not account for any of the verb-like characteristics of ISC predicators. Therefore, we must reject the 'covert verb' analysis.

5.2. Predicator theory and morphological integrity

AW develop a theory of the concept of *predicate* that is able to account for the robust cross-linguistic observation that a single semantic (or *functional* in LFG terms) predicator may be realized as more than one word in many languages (e.g. English verb + particle predicators in **look up**, **take away**, etc.). Prima' facie this seems similar to the situation presented by Wari'. In essence, AW allow for one-to-many mapping from lexical or semantic structure to syntactic structure (in their LFG-based analysis, this is *f-structure* to *c-structure*), but never in the reverse direction. They do this by teasing apart some closely related, yet distinct, strands of the LIH. Their breakdown is given in (105) – (107):

(105) *'**Lexical Adicity:** The adicity of a lexical item is lexically fully determined and cannot be altered by items of the syntactic context in which it appears.* AW (15ff)

(106) *'**Morphological Integrity:** Syntactic mechanisms neither make reference to the daughters of morphological words nor can they create new morphological words in*

constituent structure.' AW (18)

(107) *'**Morphological Expression:** Lexical entries are uniformly expressed as single synthetic (syntactically atomic) word forms.'* AW (19ff)

Lexical Adicity can be ignored as irrelevant to our present concerns. *Morphological Expression* is argued by AW (19ff) to be violable, so that a single lexical item may occasionally be expressed as multiple, even noncontiguous, words. However, and this is crucial to our current discussion, AW (18ff) make it very clear that *Morphological Integrity* is **in**violable, that is, that syntax will never have access to the internal structure of words, since words and syntax are radically separate domains. The inviolability of Morphological Integrity is the core of their proposal.

The sentential properties of ISCs therefore require AW to analyze them as phrases, not words, since otherwise Morphological Integrity would be violated (as in the internal syntax and referential constraints of ISC predicators given above). But if this is so, then the word-like properties of Wari' ISC predicators listed in (16) above simply have no obvious analysis in AW's framework. The only way in which AW's analysis can account for these properties is if Morphological Integrity (MI) is reinterpreted as a violable constraint. And in light of these facts there seems to be no advantage to insist that it is inviolable, rather than, say, 'highly ranked' (as in the Optimality Theoretic sense). Therefore, the AW theory can account for the Wari' facts, but only if its central proposal is weakened.

5.3. X-bar theoretic approach

The Wari' ISC predicators, as analyzed in section 4 at least, seem to present a problem for X' Theory since (i) they are exocentric (all X' categories are endocentric by definition) and (ii) the ISC predicators don't seem to fit any of the available X' levels (i.e. X^0, X', or X^{max}). We could not simply treat them as X'-level categories (as one reader of this paper suggested), i.e. intermediate between words (X^0) and phrases (X^{max}) because this would not account for the mixed properties that they manifest. And it would violate the requirement of X' Theory that the head of the Sentence must be a 0-level category in the X-bar system, which would in turn undermine the X-bar concept that all phrases are endocentric.

Nevertheless, there may be a way to salvage an X'-theoretic account of the Wari' facts. Carnie (1995, 2005) discusses superficially similar facts in Irish, arguing that the X^0 vs. X^{max} distinction, i.e. the very distinction between words and phrases, is epiphenomenal and has no primitive status in the Minimalist Program. Carnie's work is based on a study of Irish copular clauses and it is directly relevant to our discussion here. In my discussion of his proposals, I will refer exclusively to Carnie (2000), since that is the most current and concise version.

Carnie's thesis is that X-bar theory is redundant in the best case and wrong in the worst. As he puts it (p60), "...any given p-marker may bear properties of both traditional 'phrases' and 'heads'... What limits the behavior of p-markers are other properties of the human language computational system ..., not a structural definition or stipulation of the p-marker's status as a phrase or a head." The inspiration for Carnie's proposal comes from Chomsky's (1995) claim that clitics behave both like phrases, X^{max}s) and heads, X^0s.

Carnie's evidence comes from Modern Irish constructions like those in (108)-(110) below (Carnie's (17a-c)):

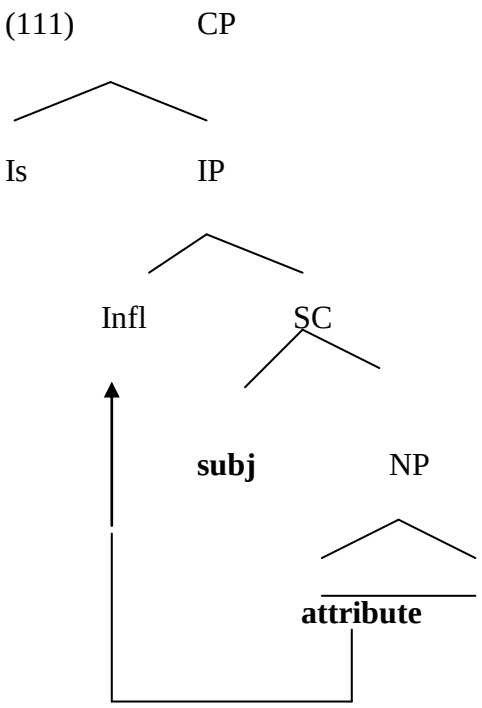
(108) **Is** **baincéir** **(é)** **an panda**.[xxx]
COMP banker (AGR) the panda
'The panda is a banker.'

(109) **Is** **dochtúir** **capall** **(é)** **Cathal.**
COMP doctor horses-GEN (AGR) Cathal.
'Cathal is a doctor of horses.'

(110) **Is** **amhrán** **a**^{L} **bhuailfidh** **an píobaire**
COMP song COMP play-FUT the bagpiper
(é) "**Yellow Submarine".**
(AGR)
'"Yellow Submarine" is a song which the bagpiper is going to play.'

Carnie's analysis of these sentences is represented in (110), his (21) (p69):

(111)



Carnie argues that the attribute has moved to what can otherwise only be considered an X^0, or head, position. He concludes that (p94) "...whether a p-marker is a 'phrase' or a 'word' is externally determined by the other principles of the grammar and is not primitive." However, Carnie recognizes that the Minimalist Program alone is unable to account for all of the Irish facts and so he draws upon Distributed Morphology (DM) in order to explain the otherwise anomalous fact that the Irish copular clauses that concern him are not stressed as single words, in spite of his analysis of them as X^0s. As he states (p99), "In particular, I claim ... that morphological items are inserted after the syntax via a principle of Late Insertion. The fact that these X^0s are surfacing with phrasal morphology is simply due to the fact that the vocabulary of Irish morphemes contains no single morpheme or affixal elements equivalent to the Complex X^0." He also observes, p 96, "The nominal predicate also exhibits P-behaviors: It has phrasal phonology (as shown by stress and lack of compounding morphology). It has "phrasal" word order..."

This means that, according to DM, word-level morphology and word-level phonology are blocked from applying to the 'raised attribute' of (111) as a whole and may apply only to its component parts, since only they are 'vocabulary items' in the DM sense. In spite of the apparent success of Carnie's analysis for Irish, however, a similar approach to the Wari' facts does not seem to work. This is so because this analysis (i) has no obvious means of predicting the non-compositionality of the meanings of Wari' ISCs (namely, where the meaning of 'to say' comes from) and (ii) it seems unable to predict Wari' fact in which a multiword ISC predicator is stressed like a single word. On the other hand, my RRG analysis accounts easily for the Irish facts discussed by Carnie, by generating them under NUC, obviating the need for movement. Since the stress rule of Irish apparently always targets words, not NUCs, nothing further need be said. I conclude, therefore, that in spite of Carnie's very useful suggestions, the RRG analysis is superior.

Before concluding, I would like to consider a set of facts from English that are similar to both the Wari' and Irish facts discussed above. These are discussed in detail in Lieber (1992). I show that my RRG analysis of Wari' extends straightforwardly to the English examples, just as it did for the Irish facts.

5.4. Lieber (1992)

Lieber (1992) cites examples like those in (112) – (115) as evidence that phrasal syntax and word syntax are essentially the same distributionally. If these are indeed productive examples of English morphosyntax then Lieber's facts, like the Wari' examples, would represent a severe problem for theories of morphosyntax based mainly on X'-theory. This is so because the only way in which the phrases below can occur in the

positions in which they occur, according to Lieber, is if the morphological component can accept syntactic phrases as input. Alternatively, taking Carnie's view, they can be accommodated if the X' vs. X^{max} distinction is discarded.

(112) The *Charles and Di syndrome* is no longer relevant. (NP modifying a noun)

(113) I don't like this new concept of the *running away with my time advertising*. (participial phrase modifying a noun)

(114) The *God is dead philosophers* are mostly dead. (periphrastic adjective + noun modifying a noun)

(115) My grandson likes to give me *the who's the boss now, silly old grandpa wink* frequently. (clause modifying a noun)

The standard answer to Lieber's data, especially for theories which defend the view that words cannot be formed by the syntax e.g. inter alia, AW, Bresnan & Mchombo (1992, 192) and Spencer (1988, 414-417), is that that such examples are only possible when they have been lexicalized, that is, when they are idioms. The proposal that phrases in the position of words are always/can be idioms is interesting in the present context. Could the Wari' examples we have been discussing also be idioms? The answer is quick for Wari': given the properties they display, they clearly are not idioms. But perhaps the English examples are? I think not. The English examples also seem completely productive to me. If one were to insist that lexicalization is the key to the English facts raised by Lieber (or the Wari' facts), then this would be a lexicalization so

immediate and instantaneous (to account for the productivity of the phenomena) as to render the very concept less than useful in this context.

Therefore, Lieber's examples do seem to present a serious challenge to various formal theories of the lexicon-morphosyntax interface, just as the Irish and Wari' facts. These English examples are not quite as unusual (if they are productive and not idioms) as the Wari' facts, however, because they are, like Carnie's Irish examples, not stressed as a single unit, but rather stressed on each individual word (though there is need for more in-depth prosodic studies in each of these cases). The RRG analysis of Wari' developed here applies without modification to Lieber's examples, by allowing phrases to appear under the NUC of the Adjective Phrase in English (except that, for English, NUC stress is not allowed to supersede word stress in English and Irish as it is in Wari'. Therefore, there will be multiple stresses on the Adjective NUC in English).

6. Conclusion

6.1. General

This paper provides an analysis for a number of intriguing traits of Wari' Intentional State Construction predicators. It accounts for the fact that these predicators have both properties of words and phrases, via the RRG constructs of NUC(leus) and Linking Rules, as well as an analysis of stress based on violable constraints. The paper argues that Wari' ISC predicators require an extension of the class of predicators recognized by Ackerman & Webelhuth (1998), an extension based on reinterpreting their Morphological Integrity Hypothesis as a violable, rather than inviolable constraint, as in AW. This analysis extends to facts of Irish and English without problem, though previous

analyses of the related facts in these languages (Carnie (2000) and Lieber (1992), respectively) do not extend to Wari', suggesting that the RRG analysis proposed here is superior to these previous X'-theoretic analyses.

I have not shown in this paper that verbs and ISC predicators are completely parallel. For example, as an Associate Editor observes, I have not show examples of ISC predicates embedded in complement clauses. I suggested earlier, however, that this may either be an accidental gap or a principled gap, both possibilities potentially due to the rarity of embedding outside of ISCs generally in Wari'. Whatever the reason for the gap (accidental, semantic, or syntactic in some way that I have not predicted), there are very strong parallels between verbs and ISC predicators that the present analysis explains very well and that no other proposal I am aware of can account for as well. Interestingly there is one more interesting prediction that the present analysis makes that other analyses do not, discussed in the next section, though this is somewhat internal to the theory of Everett (1996).

6.2. Lack of inflection in Wari' morphology

I want to suggest in concluding this paper that an additional insight into Wari' morphology is provided by the way in which the analysis above relates to the following considerations

Everett & Kern observe in various places, but especially in their discussion of derivational morphology (355ff) that it is curious that Wari' should have such a rich derivational morphology (at least as they analyse it, all of which is found in what they call zero-derivation), yet almost no inflectional morphology. That is, the inflectional

material, e.g. tense, voice, person, number, mood, etc. is all found on clitics, not affixed to roots or stems. This asymmetrical distribution of derivational vs. inflectional phenomena in the language disappears under the present analysis. The language has one derivational process (compounding) and allows inflection only on inalienably possessed nouns and its single preposition (with room for discussion about one or two other potential cases of inflection). The RRG solution to the asymmetry between inflection and derivation in Wari' is to eliminate it. It also explains why inflection is so rare in Wari'. Inflection would be limited to nouns in my analysis of Wari' because, as we saw, inflection in Wari' follows the NUC. However, although either V or NUC is an appropriate semantic host for inflection, only V is an appropriate morphological host. This is because morphological inflection in general attaches only to words, according to the theory of affixation vs. cliticization developed in Everett (1996), wherein affixes are morphological complements and clitics are word adjuncts. Since NUC is not a word, any inflectional material which follows it would be in clitic form, rather than affix form, i.e. according to Everett (1996) it can only be an adjunct to NUC, since NUC is not a morphological category. Wari' turns out, then, to have almost no morphological processes. This symmetry and simplification of our view of Wari' word-formation (cf. also Everett (1998)) is thus an interesting potential argument for the RRG analysis of Wari' ISCs.

REFERENCES

Ackerman, Farrell & Gregory Stump. forthcoming. "Paradigms and periphrastic expression: a study in realization-based lexicalism", In: Louisa Sadler and Andrew Spencer, eds., **Projecting Morphology**. CSLI Publications, Stanford.

Ackerman, Farrell & Gert Webelhuth. 1998. **A Theory of Predicates**, CSLI, Stanford.

Baker, Mark. C. 2003. **Lexical Categories: Verbs, Nouns, and Adjectives**, Cambridge University Press, Cambridge.

Bowers, John. 1993. 'The Syntax of Predication', **Linguistic Inquiry 24**, 591-656.

Bresnan, Joan & Sam Mchombo. 1995. 'The Lexical Integrity Principle: Evidence From Bantu,' **NLLT** 13:181-254.

Carnie, Andrew. 1995. **Non-Verbal Predication and Head-Movement**, unpublished Ph.D. dissertation, Massachusetts Institute of Technology.

Carnie, Andrew. 2000. 'On the Definition of X^0 and XP,' **Syntax** 3, pp. 59-106.

Everett, Daniel L. 2005a. 'Periphrastic Pronouns in Wari', **IJAL 71:3**, pp 303-326.

Everett, Daniel L. 2005b. 'Cultural Constraints on Grammar and Cognition in Pirahã: Another Look at the *Design Features* of Human Language', to appear in **Current Anthropology**, October 2005.

Everett, Daniel L. 1999 'A Formação de Palavras na Sintaxe em Wari', In: Margarida Basílio, ed., *Limitação da Palavra,* special issue of **Palavra**, journal of the Pós-graduação em Letras da Pontifícia Universidade Católica do Rio de Janeiro, Brazil.

Everett, Daniel L. 1998: 'Wari' Morphology', In: Arnold Zwicky and Andrew Spencer (eds.) **Handbook of Morphology**, Basil Blackwell, London.

Everett, Daniel L. 1996 **Why There Are No Clitics**, Summer Institute of Linguistics and the University of Texas at Arlington Series in Linguistics, Dallas, TX (188pp).

Everett, Daniel L. and Barbara Kern. 1997. **Wari': The Pacaas-Novos language of Western Brazil**, Routledge Press.

Goldberg, Adele. 2003. "Words by Default: The Persian Complex predicator Construction", In: Elaine Francis and Laura Michaelis (eds.), **Mismatch: Form-Function Incongruity and the Architecture of Grammar**, CSLI Publications, 83-112.

Goldberg, Adele. 1995. **Constructions: A Construction Grammar Approach to Argument Structure, University of Chicago Press.**

Lieber, Rochelle. 1992, **Deconstructing Morphology: Word Formation in Syntactic Theory**, The University of Chicago Press, Chicago.

Postal, Paul M. 1969. 'Anaphoric Islands,' **Papers from the 5th Annual Meeting of the Chicago Linguistics Society**, pp. 203-239.

Sag, Ivan A. & Thomas Wasow. 1999. **Syntactic Theory: A Formal Introduction**, CSLI, Stanford.

Spencer, Andrew. 1998. **Morphological Theory**, Blackwell, Cambridge, MA.

Turner, Ingrid. 2006. **Intonation and Information Structure in Wari'**, unpublished MA' thesis, Department of Linguistics and English Language, University of Manchester.

Van der Voort, Hein. 2002. "The quotative construction in Kwaza and its (De-) grammaticalization", In: Mily Crevels, Simon van de Kerke, Sérgio Meira and Hein van der Voort (eds.), Current Studies on South American Languages, Leiden University, The Netherlands. PAGES???

Van Valin, Robert D. and Randy J. LaPolla. 1997. **Syntax: Structure, Meaning, and Function**, Cambridge Textbooks in Linguistics, Cambridge University Press.

Ward, Gregory, Richard Sproat , and Gail McKoon . 1991. A Pragmatic Analysis of So-Called Anaphoric Islands. *Language* 67:439-474.

NOTES

[i] The data from this paper come from Everett and Kern (1997). In 1997, when Barbara Kern and I first discussed these constructions, I expressed scepticism. Kern's response was that I should go check them out myself. So I did. In Spring of 1997, I spent three days in the town of Guajará-Mirim, Rondônia. During this time I checked these constructions with more than 30 Wari' speakers, verifying all the principal facts reported on in this paper first-hand (Wari' frequently travel to this city, just downriver from their villages along the Pacaas-Novos river, to sell products, seek medical attention, etc. I arrived in town just as a large boat of Wari' arrived). I want to thank Brian Joseph, Greg Stump, Andrew Spencer, Robert VanValin, Barbara Kern, Geoffrey Pullum, Claudia Brugman, Paul Postal, and many others for comments on the analysis of Wari' ISCs. Keren Rice offered detailed comments on the entire paper that helped me to organize and express the ideas contained herein more effectively.

The abbreviations used in the glosses of this paper are: *1p* 'first person plural', *3s* 'third person singular', etc.; *rp/p* 'realis past/present tense'; *irr* 'irrealis'; *pass* 'passive'; *n* 'neuter gender'; *pincl* 'plural inclusive'; *pexcl* 'plural exclusive'; *emph* 'emphatic'; *prox:hearer* 'proximate to hearer'; *m* 'masculine gender'; *rf* 'realis future'; *rem* 'remote'; *refl* 'reflexive'; *prox* 'proximate'; *prep* 'preposition'; *f* 'feminine' (the genders and tenses are combined in glosses, e.g. n:rp/p = 'neuter gender, realis past & present tense'). VIC, verbal inflectional clitic, and INFL, clausal inflection, are terms used throughout Everett & Kern (1997). They refer to the clitics that follow the verb and sentence-initial modal particles and WH words, respectively. The VIC will usually manifest tense, mood, voice, and person. The INFL element agrees in gender and number with the modal or WH word and also manifests tense.

The IPA values for Wari' orthographic symbols are straightforward, except in a few cases. In the following, the IPA symbol is given in //'s and the corresponding orthographic symbol (orthography developed by New Tribes missionaries) in single quotes (see Everett & Kern (1997, 395-406) for details). /p/ '**p**', /t/ '**t**', /tB/ '**tp**', /k/ '**c**, **qu** [as in Portuguese, DLE] ', /k^w/ '**cw**', /□/ "', /tʃ/ '**x**', /h/ '**h**', /h^w/ '**hw**', /m/ '**m**', /m□/ '**m"**', /n/ '**n**', /n□/ '**n"**', /ʀ/ '**r**', /w/ **w**', /y/ '**j**', /a/ '**a**', /e/ '**e**', /i/ '**i**', /o/ '**o**', /ø/ '**ö**', /ɣ/ '**u**'.

This research was supported by the *National Science Foundation* under grant BCS-0344361 to Robert Van Valin and the author, and under grant SBR-9631322 to the author.

[ii] That analysis, discussed in more detail in Everett (1998), is roughly just the addition of V-brackets to a sentence used as an ISC predicator: (i) $[_S ...] \rightarrow [_V [_S ...]]$. By this analysis, a sentence can be used as a verb just in case it undergoes this derivation, which would be marked by stress (i.e. the S would subsequently be stressed as a V, not an S).

[iii] Wari' has three genders: masculine, feminine, and neuter. As shown in examples in the text, nonreferential words and phrases, such as 'why', subordinate clauses, and 'not' trigger neuter agreement.

[iv] Everett and Kern use the term 'preverbal modal/mood markers' for the words in question because they are found preceding the verb to signal non-indicative or negative sentences. The words themselves do not necessarily belong to a special lexical class of modals.

[v] One reviewer asked what I consider the syntactic arguments to be in Wari' when lexically required arguments are not expressed as full NPs. This is a good question because in Wari', like most American Indian languages, full NPs are relatively rare in discourse. When they are absent, following RRG (see VVLP, page 34ff), I analyze the agreement markers on the VICs to be the arguments. That is, I do not hypothesize the existence of null nominals, e.g. Chomskyan 'empty categories'.

[vi] VICs mark the person, number, and gender subjects and objects, in different combinations. VICs are discussed in detail in EK, section 2.1.3.6. A full listing of Wari' Vics is given in the tables below. It is important to provide this here since the facts involving them are unusual and complicated.

Wari' VICs

ACTIVE VICS

		Tense		Tenseless	Object
	realis past/present	realis future	irrealis		
first singular	**'ina**	**ta'**	**xita'**	**ta'**	**pa'**
second singular	**ma**	**ra**	**xima**	**ma**	**em**
third singular	**na**	**tara**	**xira**	*masculine* **ca**	**on**
				feminine **cama**	**m**
				neuter **ne**	**in**
first plural inclusive	**'iri**	**xi'**	**xixi'**	**xi'/'iri**	**pari'**
first plural exclusive	**'urut**	**xut**	**xuxut**	**xut/'urut**	**parut**
second plural	**hwe**	**je**	**xihwe**	**hwe**	**uhu'**
third plural	**nana**	**tatara**	**xirara**	*masculine* **caca**	**ocon**
				feminine **cacama**	*reduplicative*: VCV

NON-ACTIVE

	$Passive_1$		$Passive_2$		Reflexive/Reciprocal
first singular	**xita**		**xita**		**xije**
second singular	**xima'**		**xima**		**xijem**
third singular	**ta**		*masculine* **towa**		**xucun**
			feminine **tacama**		**xequem**
			neuter **xine**		
first plural inclusive	**--**		**--**		**xijein**
first plural exclusive	**--**		**--**		**xujuxut**
second plural	**xihwe**		**xihwe**		**xujuhu'**
third (tense)	**tata**		*masculine* **tococwa**		**xucucun**
third (tenseless)	∅		*feminine* **tacacama'**		**xequequem**

[vii] Other phonological evidence includes Vowel Harmony. Vowel Harmony is identified by Everett and Kern (1997, 377ff) as an exclusively word-internal process, as illustrated in (i)-(iii):

(i) ***cotere'*** (co-te-'iri) → [kote**re**□] 'our father'
(ii) ***coturut*** (co-te-'urut) → [kot□**r**□**t**]
(iii) ***cote*** (co-te) + *hwe* 2p → [ko**te** h^{w}e], *[kote**h^{w}e**]

[viii] Example (4) is interesting because it illustrates that questioning the subject of the sentence requires tense in second position, to the immediate right of the question word, and also immediately to the right of the verb. WH-questions of subjects require that tense be expressed twice in the sentence. This, as (6) – (9) show, is not true of any other questioned constituent.

[ix] Subsequent to EK, van der Voort (2002), based on research from 1995-1998, published a very interesting article on quotatives in Kwaza, an unrelated language but one also spoken in the state of Rondonia, Brazil. Kwaza quotatives share many properties with Wari' ISCs, suggesting that this interesting construction may be an areal characteristic or

that there was some previous (there is none now) contact between Wari' and Kwaza speakers.

[x] Some English dialects have quotatives without a overt quotative verb, e.g. 'to say': "I mean, he's like 'Don't even go there', so I am like 'Fine, forget it, then.' Arguably, though, the word 'like' plays a function similar to a quotative verb.

[xi] VIC is not a technical term of RRG and would label a tree in 'official' RRG format. However, I use this term for now to better enable the reader to follow the discussion.

[xii] This cannot be part of the preceding word, **tara** '3s:rf', because it is a special class that only attaches to other nuclei. It is not like the demonstrative **ma**' of other examples in because it specifies a preceding predicator, rather than a preceding noun.

[xiii] Note that according to Everett and Kern (p97ff) purpose clauses exist that are not ISCs. These must follow their superordinate clauses.

[xiv] This form is listed as a separate form because of its function and because this is the way it is traditionally treated by linguists who have worked on Wari'. However, it is not clear to me that it is anything more than a variant function of normal quotatives.

[xv] I am labeling these as 'COMP' and INFL because these are the terms used by Everett & Kern. However, in section 4 I suggest that these are PRECORE positions, as per RRG.

[xvi] A possible lack of correspondence between verbs and ISC predicators is that I have no evidence of causativization with ISC predicators. But this is not a problem for my account for a couple of reasons. First, as the discussion preceding (77) below indicates, preverbal modification of ISC predicators mimics the formal expression of causativization in the language. So, the absence of causative interpretations in our data could be an accidental gap or the absence could be due to a semantic constraint unrelated to clause structure per se. Second, I am not predicting complete parallelism between verbs and ISCs in any case. Everett & Kern predict that. I predict by the account here only a partial parallel, since the ISC predicators are not verbs. I am not claiming that ISC predicators *are* verbs. They and verbs are both dominated by a 'predicator node'.

[xvii] A reader suggests that stress in Wari' might refer to X' (i.e. categories intermediate between words, X^0, and maximal phrases, X^{Max}, in the X'-system). However, that would be an ad hoc move since the category X' is neither the target of the stress rule for any other category, nor is X' otherwise needed to my knowledge in the grammar of Wari'. See section 5 for further discussion of X' theory in light of my findings here. Indeed more recent work, such as that of Carnie discussed in this paper, has sought to eliminate X' entirely from the theory.

[xviii] **ma'** is one of a small set of stressless particles, so is not stressed by rule (68).

[xix] Wari' stress has not been fully studied in relation to intonation, focus structure, its phonetics, or other areas of the grammar. However, the basic rule given in the text accurately predicts the basic placement of loudness in the examples.

[xx] Although, as mentioned earlier, the postverbal modifier is never stressed, the final syllable is nevertheless stressed here because the modifier is functioning as a pronoun, not as a postverbal modifier. It can function as either.

[xxi] This is clearly reminscent of the 'Binding C' constraint of much work in generative syntax, supporting that constraint.

[xxii] I include this example here, where the matrix object is referenced exclusively on the embedded VIC, because it is predicted to be grammatical (this is because matrix object agreement is generally optional). So it is possible, though rare, to have agreement in the lower clause only. It is not possible, however, to have agreement in the matrix clause only.

[xxiii] Wari' anaphora is discussed in Everett and Kern (180-191). In general reflexive and reciprocal relations are expressed by special forms of the Verbal Inflection Clitics. Otherwise, the type of anaphora described for ISC predicators is the same as for any other embedded clause.

[xxiv] The VIC **nanam** is not connected upwards in the tree because, again, in RRG purely grammatical morphemes e.g. agreement, tense, voice, etc. are only connected downwards into the operator structure.

[xxv] Recall once again that VICs are *not* second-position clitics. They exclusively follow verbs and ISC predicators, i.e. clausal NUC-position.

[xxvi] In a more complete RRG analysis of Wari', this rule would be part of a 'constructional schema', along the lines of (thanks to Robert VanValin for suggesting this schema):

CONSTRUCTION: Wari' intentional state constructions
SYNTAX: Juncture: Nuclear Nexus: Subordination Construction type: Embedding [SENT [CL [CORE [NUC ([SENT) [CL [CORE [NUC...]...]...](])]...]...]] Unit template(s): Default PSA (Privileged Syntactic Argument): None Linking: Default
MORPHOLOGY: None. No lexical verb in matrix core.

SEMANTICS: Purposive, cognition, propositional attitude, indirect discourse or direct discourse
PRAGMATICS: Illocutionary force: Independent in main and embedded clauses in direct discourse; otherwise only in main clause. Focus structure: No restrictions

[xxvii] A reader makes the very reasonable comment that according to my analysis ISC predicator clauses should be found in embedded sentences, just as verbs can be embedded, if my proposed parallelism between verbs and ISC predicators goes through in every instance. This reader is correct that I do in fact predict this. But I have found no examples of it. The problem, I believe, is that embedded clauses outside of ISC predicators is just extremely rare generally in Wari'. There are very, very few examples of non-ISC embedded clauses in Barbara Kern's extensive text collection. So while I do indeed predict that ISC predicators should be found in embedded clauses, as verbs are, I am unable to provide any examples of this at present.

[xxviii] The VIC **caca** is tenseless here, indeed the entire matrix clause is tenseless, because it is reflexive/reciprocal. See the tables of VICs in footnote 6 above.

[xxix] In fact, as I have presented this research in various fora, this is the most common counter-proposal I receive.

[xxx] As Carnie (p67, footnote 19, observes, "The presence of the agreement morpheme is dialect dependent, being found mainly in the central Conamara dialect."