

# **Liminal Constructions**

ca. 2003

Daniel L. Everett

*dan@daneverettbooks.com*

## **Abstract**

This paper proposes a new kind of morphosyntactic entity, LIMINAL CATEGORIES (LCs), which shares properties of words and phrases simultaneously. It proposes an analysis of three kinds of LCs in the Amazonian language, Wari', (i) periphrastic pronouns; (ii) complex kinship terms; and (iii) and INTENTIONAL STATE CONSTRUCTIONS (ISCs). I propose an account of LCs in Role and Reference Grammar (RRG) and conclude that LCs are not abnormalities, but fundamental components of the syntax of human languages. I argue that though some current theories can account for Wari' complex kinship terms and periphrastic pronouns, RRG is better equipped to analyze the predicates of ISCs, as part of its general account of LCs.

## Liminal Constructions<sup>1</sup>

*"But there is nothing in a number of instances, different from every single instance, which is supposed to be exactly similar; except only, that after a repetition of similar instances, the mind is carried by habit, upon the appearance of one event, to expect its usual attendant, and to believe that it will exist. This connexion, therefore, which we feel in the mind, this customary transition of the imagination from one object to its usual attendant, is the sentiment or impression from which we form the idea of power or necessary connexion." Hume (1975 [1772], 75)*

### 1. Introduction

There is a growing literature from work in Construction Grammar (Fillmore and Kay, 1993; Goldberg 1995), Lexical-Functional Grammar (Ackerman & Webelhuth (1998); Ackerman (1998) and Ackerman & Stump (2001), Head-Driven Phrase Structure Grammar (Kathol (2000), Inferential-Realizational Morphology (Spencer 2003, Harris 2003, Stump 2003, Booij 2003, Ackerman (1998), and other approaches (Blevins 2003), which argues for the existence of structures that simultaneously bear properties of two or more linguistic levels or components, e.g. which seem to be neither fully phrasal nor morphological or lexical. Although such structures are often referred to as 'mixed categories' (Goldberg (2001), Ackerman (1998)), I will refer to them here as LIMINAL CATEGORIES (LCs), since it seems that they need to be recognized as a larger class than might have earlier been assumed and are, moreover, a distinct set of theoretical objects in their own right.<sup>2</sup>

This paper is intended as a contribution to the theory of Liminal Categories on two fronts: the empirical and the theoretical. Empirically, the paper illustrates three distinct types (in terms of structure and degree of grammaticalization) of LCs in Wari', a Chapakuran language of the Brazilian Amazon.<sup>3</sup> The LCs observed in Wari' are (i) the entire paradigm of personal pronouns; (ii) a large section of kinship terminology; and, (iii) last but not least, a very unusual construction I have labeled the INTENTIONAL STATE CONSTRUCTION (ISC). The special interest of these structures for discussions of mixed categories and periphrastic morphology is: (i) the entire paradigm of Wari' personal pronouns have a transparent syntactic constituent structure, yet they are neither syntactic constructions nor yet quite words; (ii) kinship terms show a pattern similar to personal pronouns, but one which can be argued to be farther along diachronically or, to put in another way, in grammaticalization; finally (iii) ISCs are transparently syntactic, yet they simultaneously manifest morphophonological characteristics which would lead us conclude that entire sentences in Wari' may function as Verbs (V<sup>0</sup>s), unless we attribute special construction-based status to them.

Theoretically, the paper suggests that the problem posed by LCs may be more interesting and more serious than has been suspected, at least for derivational theories, since there seems to be no way to use X-bar theoretic trees and movement to derive either ISCs or Wari' personal pronouns. I argue that Role and Reference Grammar (RRG) perhaps holds an advantage over other theoretical approaches to LCs in the way it constructs NPs and Clauses around a syntactico-semantic NUC(leus), rather than X-bar theoretic tree structures.

The paper is organized as follows. First I review some of the more salient recent work establishing the generality of Liminal Categories. The next couple of sections describe the relevant constructions in Wari'. Following these descriptive sections, I offer a theoretical analysis of the Wari' constructions within the theory of RRG and argue that this analysis can be extended straightforwardly to other 'mixed'/Liminal categories. If this suggestion is correct, then RRG can be said (i) to predict the existence of LCs and (ii) to provide a maximally simple and general analysis of them. Finally, I consider some alternative analyses and proposals, arguing that these are less useful than the RRG analysis.

## 2. Survey of previous studies

### 2.1. Complex Predicates

#### **Mohanan**

One of the earliest studies of mixed categories or LCs is Mohanan (1997). At the outset of her study, Mohanan (431ff) credits Cattell (1984) with introducing the term 'complex predicate' into linguistic theory to describe multiple word expressions of single semantic or syntactic units. She cites phrases like *make a claim* as examples of items which are phrases in one sense yet which express a unitary predicate. Such constructions are interesting because they can reveal information about the relationship between different components of language and grammar. Mohanan herself (p432) defines complex predicates as in (1):

(1) "A COMPLEX PREDICATE construction is one in which two semantically predicative elements jointly determine the structure of a single syntactic clause."

She argues that examples like (2) are complex predicates in just this sense:

(2)    **raam-ne**        **niinaa-kii**        **madad**                    **kii**  
          Ram-ergative   Nina-genitive   help-nominative       do-perfective-feminine  
          'Ram helped Nina.'

The two words **madad kii**, literally 'help do', form a single predicate in meaning and in some syntactic behaviors. That is, such expressions in Hindi show properties of both words and phrases simultaneously. Mohanan (439ff) defends an analysis of these structures based on mapping relations between several linguistic components. Mohanan's analysis is particularly interesting theoretically because the facts she discusses seem best handled in a *parallel correspondence theory* (see Bresnan 2001, viiff) e.g. LFG, HPSG, or RRG, and very difficult to account for in a derivational theory, e.g. Chomsky's (1995) Minimalist Program. The definition in (1) above is compatible with the somewhat

different definition of complex predicates in (3) from the same volume, this definition from Alsina, Bresnan, and Sells (1997, 1):

(3) "Complex predicates can be defined as predicates which are multi-headed; they are composed of more than one grammatical element (either morphemes or words) each of which contributes part of the information ordinarily associated with a head."

Both of these widely-accepted definitions of complex predicates stress the compositionality of the meaning of the complex predicate as a whole. In section 4.7.3, I argue that complex predicates are a special case of the more general category of LCs and, consequently, that neither of the definitions above is a necessary condition (though they are sufficient conditions) for defining a complex predicate.

Since the publication of Mohanan's work, many other theories and analyses of complex predicates have been proposed. In the remainder of this section, I want to consider proposals by Goldberg (to appear) and then a series of investigations in 'periphrastic morphology'.

### Goldberg

Goldberg (to appear, 1) claims that complex predicates "...display a mismatch of lexical and phrasal properties: they act in some ways as a single word, and in other ways like more than one word." The cases Goldberg discusses from Persian are, superficially at least, very like the Hindi complex predicates analyzed by Mohanan (where caps indicate primary phrasal stress, which is normally placed on the verb, according to Goldberg):

(4)    **Ali     mard -râ                    ZAD**  
          Ali    man    -accusative    hit:1:sg  
          *'Ali hit the man.'*

(5)    **Ali     bâ     Babak                    HARF zad**  
          Ali    with    Babak            word    hit  
          *'Ali talked with Babak.'*

According to Goldberg (5) "... the stress facts treat the complex predicate as a single zero level verb..." She further notes that Persian complex predicates "... may differ from their simple verb counterparts in argument structure properties, they undergo derivational processes that are typically restricted to applying to zero-level categories, and they resist separation, for example, by adverbs and by arguments."

The properties just listed are understandable straightforwardly if these complex predicates are simply analyzed as words. However, as Goldberg observes, things are not quite so simple. These complex predicates may in fact be separated under certain circumstances, quite an unexpected behaviour if they are simple words. She claims that her analysis "... offers an explicit account of the range of lexical and phrasal properties of these complex predicates..." Her analysis accomplishes this by means of ranked, violable constraints.

So, for example, she argues that although these complex predicates in Persian have the 'external syntax' of a  $V^0$  category and the 'internal syntax' of two zero-level

categories, the  $V^0$  status of the predicate as a whole is only default and that it can be overridden by other constraints. Moreover, she further argues that, following Ackerman & LeSourd (1997), "... once independent syntactic forms begin to be associated with properties of complex predicates such as joint meaning or composite argument structure, they take on the status of stored phrasal forms." This is an important point that we return to below.

This statement partially expresses the liminality of such constructions. Goldberg's work, within the Construction Grammar framework, advances our understanding of complex predicates in various ways, representing a growing consensus on the need to recognize *constructions* as primitive theoretical constructs, e.g. Kathol (2000) for HPSG, Ackerman (1998) for LFG, and this paper for Role and Reference Grammar. This is in contrast with the position of research in the Minimalist Program (Chomsky 1995) which takes constructions (e.g. Passive, Causatives, complex predicates, etc.) to be epiphenomenal (Chomsky (1995), Chomsky (2001)).

Before concluding this section and moving to consider liminality in morphology proper, I want to consider two more analyses of complex predicates, Ackerman (1998) and Carnie (2000), the latter an attempt to account for some aspects of LCs in the Minimalist Program.

### Carnie

Carnie (1995; 2000) argue that the  $X^0$  vs. XP distinction, i.e. the very distinction between words and phrases, is epiphenomenal and has no primitive status in syntactic theory (i.e. the Minimalist Program (MP)). Carnie's work is based on a study of Irish copular clauses. 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.

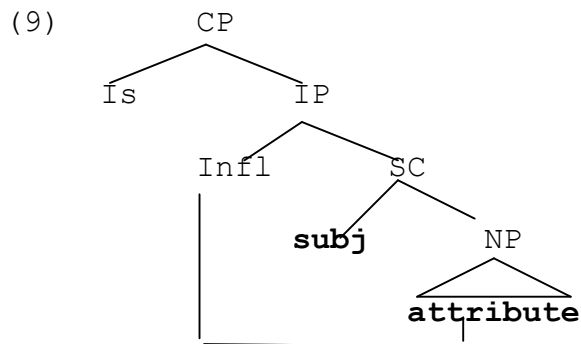
Carnie's thesis is that X-bar theory is redundant in the best case and wrong in the worst. As he puts it (p60), "...any given p-marker may bear properties of both traditional 'phrases' and 'heads'... What limits the behavior of p-markers are other properties of the human language computational system ..., 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 (XPs) and heads ( $X^0$ s).

Carnie's evidence comes from Modern Irish constructions like those in (6)-(7) below (Carnie's (17a-c)):

- (6) Is                    *baincéir*                    (é)                    **an panda.**<sup>4</sup>  
 COMP banker                    (AGR) the panda  
 'The panda is a banker'
- (7) Is                    *dochtúir*                    *capall*                    (é)                    **Cathal.**  
 COMP doctor                    horses-GEN                    (AGR) Cathal.  
 'Cathal is a doctor of horses.'
- (8) Is                    *amhrán*                    *a<sup>L</sup>*                    *bhuailfidh an píobaire*                    (é)  
 COMP song                    COMP play-FUT                    the bagpiper                    (AGR)  
 "Yellow Submarine".

*"Yellow Submarine" is a song which the bagpiper is going to play.'*

Carnie's analysis of these sentences is represented in (9), his (21) (p69):



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." This much of Carnie's proposal derives from and is directed towards the Minimalist Program (Chomsky 1995). However, Carnie recognizes that the MP 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  $X^0$ s. 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  $X^0$ s 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 (9) as a whole and may apply only to its component parts, since only they are 'vocabulary items' in the DM sense. This MP account of Complex Predicates/LCs differs crucially from the other theories mentioned in this paper, including my own account. This is so because it (i) has no obvious means of predicting the non-compositionality of the meanings of CPs; (ii) it seems unable to predict the Persian and Wari' facts, where a multi-word LC is stressed like a single word; (iii) it is based on X'-theory. All of these are nontrivial disadvantages, as we see directly.

## 2.2. Periphrastic morphology

Ackerman & Stump (to appear) address the interesting case of the Altaic language, Udmurt (see also Spencer (2003)), based on data and analyses of Kel'makov and Hännikäinen (1999).<sup>5</sup> They show that the negative form of the verb is periphrastic in Udmurt. This is illustrated in Table One.

TABLE ONE:  
Future-tense forms of Udmurt MĪNĪ 'go'  
(From Ackerman and Stump (2003, 7)<sup>6</sup>)

		Affirmative	Negative
Singular	1	<i>mīno</i>	<i>ug mīnī</i>
	2	<i>mīnod</i>	<i>ud mīnī</i>
	3	<i>mīnoz</i>	<i>uz mīnī</i>
Plural	1	<i>mīnom(i)</i>	<i>um mīne(le)</i>
	2	<i>mīnodi</i>	<i>ud mīne(le)</i>
	3	<i>mīnozi</i>	<i>uz mīne(le)</i>

Ackerman and Stump (to appear, 7ff) argue that some constructions, e.g. those in Table One do not appear to be monotonic compositions of the "... information associated with the formal elements used to express it." They further claim that (p4):

*"The essential ingredients of this proposal are the following two claims:*

*A lexeme may be realized synthetically (as a single syntactic atom) or periphrastically (by two or more syntactic atoms co-occurring in a c-structure).*

*The contentive information associated with a periphrase is not determined by the contentive information associated with its individual, syntactically independent parts through the mediation of unification principles defined on syntactic structures; rather the contentive information associated with a periphrase is specified morphosyntactically. That is, syntactic principles of constituency and linearity determine the distribution of a periphrase's individual parts, but not the functional information which that periphrase expresses."*

Such proposals are based on the idea that forms get used in particular ways over and over and take on new associations for speakers. One linguistic view of the matter, which Ackerman (1998) cites, comes from Ackerman & Stump (to appear), based on the concepts of *reanalysis* and *extension* proposed by Harris and Campbell (1995, 51).

- (10) *a. **Reanalysis** is a mechanism which changes the underlying structure of a syntactic pattern and which does not involve any modification of its surface manifestation...*  
*b. **Extension** is a mechanism which results in changes in the surface manifestation of a pattern and which does not involve immediate or intrinsic modification of underlying structure.<sup>7</sup>*

Ackerman and Stump, again drawing from Ackerman (1998), develop a construction-based approach within LFG, influenced by Goldberg (1995) and Fillmore & Kay (1993), among others. They argue that the constructional approach also accounts for the partial non-compositionality of the semantics of periphrastic morphological constructions.

A similar linguistic idea is the concept of grammaticalization from work by Hopper and Traugott (1993) and others, further developed in the idea of 'Emergent

Grammar' in work Bybee and Hopper (2001), among others. In a sense, though, all of these proposals trace back to Hume's 18<sup>th</sup> century discussions of correlation and causation, as stated eloquently in the quote at the beginning of this paper. The point there is that people impose associations between items of their language (restricted in many interesting ways, linguistically, culturally, and psychologically) and such associations can lead to the kind of reanalysis and extension Harris and Campbell discuss.

This is compatible with Construction Grammar as well as with proposals I make below on Wari'. Ackerman (1998) incorporates this insight into LFG by adopting the *Hypothesis of Morphological Exponence* whereby "... the independent syntactic pieces... are simply exponents of lexical representations... On such a view the relevant information associated with analytic or synthetic expressions is not driven by information contained in the formal pieces that they are composed of." This is a very important insight, one Ackerman shares with Construction Grammar and which, as we see below, is vital for understanding Wari' liminal constructions.

The studies we have just reviewed, very cursorily to be sure, establish the usefulness of the concept of mixed category in morphosyntactic studies. They further lead to a blurring of the syntax-lexicon boundary and away from the view that words and phrases are all that is needed to grasp the literal meaning of their containing structures. It is difficult to overstate the significance of this lack of monotonicity here since it runs deeper than common formal means for dealing with it, e.g. lexical listing of idioms or "Readjustment Rules" (Halle & Marantz (1993) or, the formal precursor of such devices, "Taxemes" (Bloomfield (1933, 166ff)). In what follows, I am going to consider evidence from Wari' that supports all of these claims. I argue, however, that the Wari' data require an adjustment in our perspective of LCs and that 'extended exponence' and other ideas so far advanced to account for mixed categories is insufficient to account for a wider range of LCs.

### 3. Wari' Pronouns and kinship terms

#### 3.1. Pronouns

From the above survey, by no means exhaustive, it is clear that many researchers have recognized that there are constructions that straddle the border between grammatical levels, and that these are significant for linguistic theory.

The Wari' facts we turn to now offer further empirical support for all of these claims. In addition, the Wari' personal pronoun constructions and intentional state constructions extend our knowledge of LCs by manifesting properties not seen – at least not quite in this combination – in any other complex predicates or periphrastic morphological exponents to date. Let us turn, therefore, to consider the Wari' facts that are the focus of this study. I begin with a description and analysis of Wari' demonstrative/personal pronouns. These pronouns are of special interest because they form a completely periphrastic paradigm.<sup>8</sup>

Wari' personal pronouns are described in Everett & Kern (1997, 306ff). As observed there, these pronouns occur only in the third person, in both singular and plural numbers. They are formed by combining the four proclitics, *co* 'singular masculine', *cam* 'singular feminine', *i* 'neuter' (there are no number distinctions in neuter gender), and *caram* 'plural', with the demonstratives in the examples below.<sup>9</sup> These proclitics cannot themselves be considered themselves personal pronouns of Wari' since, among other



reasons, they are barred from occurring without the demonstratives (see below for more details).<sup>10</sup> The resultant combinations of clitics and demonstratives form two separate paradigms whose cells are filled by exocentric, periphrastic constructions (see Borjars, Vincent, & Chapman (1997) and many other works referred to throughout the present paper), Tables 2 and 3. Wari' demonstratives are listed in (11) and illustrated with NPs in (12) (Everett & Kern 153ff; (Everett & Kern 306)):

- (11)
- |    |              |                   |
|----|--------------|-------------------|
| a. | <b>cwa'</b>  | 'this:m/f         |
| b. | <b>ca'</b>   | 'this:n'          |
| c. | <b>ma'</b>   | 'that:prox:hearer |
| d. | <b>cwain</b> | 'that:m/f:distal' |
| e. | <b>cain</b>  | 'that:n:distal'   |

- (12)
- |    |  |                                 |
|----|--|---------------------------------|
| a. | <b>tarama'</b><br>man<br>'this man'      | <b>cwa'</b><br>this:m/f         |
| b. | <b>xirim</b><br>house<br>'this house'    | <b>ca'</b><br>this:n            |
| c. | <b>carawa</b><br>animal<br>'that animal' | <b>ma'</b><br>that:prox:hearer  |
| d. | <b>narima'</b><br>woman<br>'that woman'  | <b>cwain</b><br>that:m/f:distal |
| e. | <b>pana</b><br>tree<br>'that tree'       | <b>cain</b><br>that:n:distal    |

Temporal demonstratives are also found in Wari'. These demonstratives are generally ambiguous between a reading in which they modify the predicate vs. a reading in which they modify an immediately preceding nominal, as seen in (13)-(15), so long as multiple interpretations are allowed by context, real-world knowledge, etc. The temporal demonstratives are: *paca'* 'that just occurred (always heard but never seen)'; *cara ne* 'that recently absent', *cara pane* 'that long absent', and *pacara pane* 'historical past'.

- (13) **Ja' na wari' paca'.**  
shoot 3s:rp/p person that:just:occurred

'Somebody just shot.' (Said, for example, in the village of a shot audible in the distance.) Or 'The person who just left is shooting.'

- (14) **Cain'**            **cain'**            **ne**        **wixi**    **-con**    **tarama'**  
           that:n:distal    that:n:distal    3n        name    -3sm    man

**cara ne?**

that:recently:absent

*'What was that recently absent man's name?' Or 'What is the name of that man recently departed?'*

- (15) **Coromicat**                    **inon**                    **nem**  
   'ina-on  
           think                        1s:rp/p-3sm                sister's:husband:1s

**cara pane.**

that:long:absent

*'I am remembering my long absent brother-in-law.'*

Note that in (15) **cara pane** can only modify **nem** 'sister's:husband:1s' because the verb is marked for an incompatible tense.

The resultant two paradigms, temporal and spatial are given in Tables 2 and 3 below:<sup>11</sup>

TABLE TWO  
**Paradigm of spatial demonstrative pronouns**

	Proximate to Speaker	Proximate to Hearer	Distal
Masculine singular	<i>co cwa'</i>	<i>co ma'</i>	<i>co cwain</i>
Feminine singular	<i>cam cwa'</i>	<i>cam ma'</i>	<i>cam cwain</i>
Neuter	<i>'i ca'</i>	<i>'i ma'</i>	<i>'i cain</i>
Plural	<i>caram cwa'</i>	<i>caram ma'</i>	<i>caram cwain</i>

TABLE THREE  
Paradigm of temporal demonstrative pronouns

	Seen/not heard	Recently absent	Long absent
Masculine singular	<i>co paca'</i>	<i>co pacara ne</i>	<i>co pacara pane</i>
Feminine singular	<i>cam paca'</i>	<i>cam pacara ne</i>	<i>cam pacara pane</i>
Neuter	<i>*'i paca'</i> or <i>cara</i> (*form never observed, but predicted)	<i>'i cara ne</i>	<i>'i cara pane</i>
Plural	<i>caram paca'</i>	<i>caram pacara ne</i>	<i>caram pacara pane</i>

Now the reader could legitimately ask why I propose these as pronominal paradigms, as opposed to, say, noun or determiner phrases of some sort, based on evidence seen. Perhaps these 'paradigms' are nothing more than the MS Word command 'insert table'? In what follows, therefore, I want to give reasons for analyzing these as LCs, i.e. neither fully words nor fully phrases.

First, the constructions in Tables 2 and 3 are not simply words. If they were, the initial glottal stop on *ma'* [ʔmaʔ] 'that proximate to hearer' as in *co ma'* 'that masculine one proximate to hearer' and *'i ma'* 'that neuter one proximate to hearer', should delete, since word-medial glottal-consonant clusters do not otherwise occur. Thus, in the cases of *co ma'* and *'i ma'*, *co* and *'i* must be interpreted as morphologically independent and not, say, as prefixes. We interpret them, as well as *cam* and *caram* as clitics (as we see in 3.2., prefixes, unlike clitics, undergo Vowel Harmony with their hosts, and show word-medial glottal deletion further supporting the analysis of these as periphrastic expressions). On the other hand, although the demonstrative pronouns are morphophonologically complex, they nonetheless behave as lexical items in several aspects of their function, meaning, and form. In what follows, I want to consider a (non-exhaustive) list of the properties of these pronouns that support our analysis of them as LCs, i.e. intermediating between words and phrases.

(16) THE CONSTRUCTIONS IN TABLES 2 AND 3 DO NOT CO-OCCUR WITH OTHER NOUNS.

- (17) a.      **Mon**                      **womu**                      **cara**                      **ne**  
                  **ma'-on**                      **womi-u**  
                  that:prox:hearer-3sm    cotton-1s                      that:rec.                      rec:past  
                  'Where are my clothes that were just here a minute ago?' (lit: '... my recently absent clothes?')

- b.     **\*Mon**                      **womu**            **'co**     **paca'**  
           **ma'-on**                    **womi-u**  
           that:prox:hearer-3sm    cotton-1s        mas:sg that:rec.  
           *'Where are my clothes that were just here a minute ago?'*
- (18) a.     **Maqui'**        **na**     **co**     **ma'.**  
           come 3s:rp/p m        that:prox:hearer  
           *'He came.'* (lit: 'That masculine being/thing near you came.')
- b.     **\*Maqui'**        **na**     **tarama'**        **co**     **ma'.**  
           come 3s:rp/p m        man                that:prox:hearer  
           *'The man came.'*

This is an interesting restriction, even though it does not enable us to conclusively decide on the syntactic vs. morphological status of the forms. This is so since the failure to co-occur with other nouns is predicted by either analysis. For example, if **co ma'** were the (periphrastic or otherwise) head of a DP/NP, this would presumably prohibit the co-occurrence of a co-referent noun (tautophrasally), barring some unusual kind of 'clitic-doubling' (Everett 1996, inter alia). At the same time, if **co** were a pronoun, this would also bar a coreferent noun from co-occurring with it in the same phrase. But though (15) does not force an analytical choice here, it does show that the proclitic is not merely a minor additional specification of the demonstrative for gender, but that the attachment of the proclitic severely restricts the distribution of the demonstrative.

(19) DEMONSTRATIVES MAY ONLY APPEAR SENTENCE-FINALLY (20)-(23), UNLESS THEY CO-OCCUR WITH A PROCLITIC AS IN TABLES 2 AND 3 (24) AND (25):

- (20) **Mi'**    **'inon**            **con**                    **hwam tarama'**        **cwa'.**  
       give 1s:rp/p-3sm    prep:3sm            fish    man    this:m/f  
       *'I gave the fish to this man.'*
- (21) **\*Mi'**    **'inon**            **con**                    **hwam cwa'**            **tarama'**        **(cwa').**  
       give 1s:rp/p-3sm    prep:3sm            fish    this:m/f        man    (this:m/f)  
       *'I gave this fish to this/the man.'*
- (22) **Mi'**    **'inam**            **pain**                    **mapac narima'**        **cwa'.**  
       give 1s:rp/p-3n     prep:3n                corn    womanthis:m/f  
       *'I gave the corn to this woman.'*
- (23) **\*Mi'**    **'inam**            **pain**                    **mapac ca'**        **narima**        **(cwa').**  
       give 1s:rp/p-3n     prep:3n                corn    this:n    woman(this:m/f)  
       *'I gave this corn to this/the woman.'*

- (24) **Wirico**      **co cwa'**      **tarama'**      **co**      **noc**      **ta'**  
 emph:3sm      m this:m/f      man      INFL:m/frp/p      dislike 1s

cwa'.

this:m/f

*'It is this man that I dislike.'*

- (25) **Querec**      **nam**      **cam ma'**      **Xijam.**  
                  **na-m**  
 see      3sr:p/p-3sf      f that:prox:hearer      m:name.  
*'Xijam saw her.'* (lit: 'Xijam saw that woman/girl.')

This set of contrasts shows that the addition of the clitic to the demonstrative produces an item with a distribution wider than that of the demonstrative alone. This supports the idea that these are different kinds of words (or non-endocentric phrases).

(26) THE SEMANTIC SCOPE OF THE TEMPORAL DEMONSTRATIVE IS FIXED WHEN PRECEDED BY THE PROCLITIC.

As noted earlier, the temporal demonstratives can normally modify either a preceding noun or an event, whether or not they are preceded by a noun, e.g. in (14) and (15). However, when a temporal demonstrative is preceded by a proclitic, as in Table Three, its scope is fixed, i.e. it can only modify the proclitic. This restriction indicates that the proclitic + demonstrative sequence is functioning as a word, since the resultant restriction is not typical of phrases, yet would be immediately explained if the sequence were a lexical pronoun.

(27) PERSONAL PRONOUNS MAY NOT REFERENCE RECIPIENT/GOAL NOMINALS.

This is a bit complex to demonstrate, so let me say why this point is relevant before I illustrate it. There are examples of demonstratives (in Everett & Kern 1998, cf. also below) modifying a range of syntactic/semantic roles, including RECIPIENT. Yet when coupled with the proclitics, they may only reference non-RECIPIENT roles, as (29)-(32). This is relevant because, regardless of what the reason for this restriction turns out to be, it is a restriction (i) only found in these combinations and (ii) typical of lexical items and pronouns (so, for example, in Romance, nonclitic pronouns are often restricted to subject position). This restriction is thus supportive of analyzing the cells of the Tables as pronouns. To better understand this restriction, consider first (28), where a demonstrative modifies a RECIPIENT. Unlike (34) below, a demonstrative can mark a RECIPIENT just in case it is not part of a pronoun:

**Recipient:**

- (28)    **Mon**                      **ma'**                      **tarama'**                      **co**  
           **ma' -on**  
           that:prox:hearer-m     that:prox:hearer     man                      INFL:m/frp/p  
  
           **mi'     ta'     con**                      **hwam**                      **pane.**  
           give    1s     prep:3sm               fish                      rem:past  
           *'There is the man to whom I gave a fish.'*

**Possessor:**

- |      |  |               |                 |                |                |
|------|--|---------------|-----------------|----------------|----------------|
| (29) | <b>Cain'</b>                                       | <b>cain'</b>  | <b>ne</b>       | <b>wixicon</b> | <b>tarama'</b> |
|      |  |               |                 | wixi-con       |                |
|      | that:n:distal                                      | that:n:distal | 3n              | name-3sm       | man            |
|      | <b>cara</b>  |               | <b>ne?</b>      |                |                |
|      | that: recently:absent                              |               | recently:absent |                |                |
|      | <i>'What was that recently absent man's name?'</i> |               |                 |                |                |

**Theme/Patient** (as prepositional object):

- (30) Mi' ne pain 'i ma'.  
give 2s:1s:rf prep:3n s that:prox:hearer  
'Give that neuter thing near you to me.'

**Theme/Patient** (as verbal object):

- (31) **Querec**                      **nam**                      *cam ma'*                      **Xijam.**  
                                  **na-m**  
 see      3sr:p/p-3sf              f that:prox:hearer              m:name.  
 'Xijam saw her.' (lit: 'Xijam saw that woman/girl.')

**Actor:**

- (32) **Maqui' na co ma'.**  
 come 3s:rp/p m that:prox:hearer  
*'He came.'* (lit: 'That masculine being/thing near you came.')

Now consider the contrasts in (33) and (34), where the same demonstrative cannot be associated with the RECIPIENT:

- (33) **Mi nam con hwam Hatem tarama'.**  
           give 3srp/p-3sf prep:3sm fish f.name man

*'The man gave Hatem the fish.'*

But:

- (34) a. **\*Mi' nam con hwam cam cwa' tarama.**  
           give 3sr:p/p-3sf prep:3sm fish f this:m/f man

*'The man gave her a fish.'* (lit: 'The man gave this feminine one a fish.')

- b. **Mi' 'inon con hwam tarama' cwa'.**  
       give 1s:rp/p-3sm prep:3sm fish man this:m/f  
*'I gave the fish to this man.'*

- c. **\*Mi' 'inon con hwam co' cwa'.**  
       give 1s:rp/p-3sm prep:3sm fish masc. this:m/f  
*'I gave the fish to him.'*

From various other examples we have seen, the ungrammatical examples above cannot be attributed to verb agreement or semantic incompatibility (notice that the demonstrative alone can appear with a RECIPIENT nominal, as in (28)). There is simply a syntactic constraint against pronouns bearing the RECIPIENT role in Wari'. But this constraint is more complex to state and less intuitive if we do not recognize the constructions in Tables 2 and 3 as pronouns (since how could a NP, for example, be barred from one syntactic position or grammatical function but not another? Proposals come to mind, but, again, seem much less natural).

(35) THE COMBINATION OF A PRONOMINAL PROCLITIC AND A DEICTIC IN A PHRASE WOULD BE UNEXPECTED, SINCE THIS WOULD ENTAIL MARKING A PRONOMINAL WITH A DEICTIC ELEMENT, HIGHLY UNUSUAL CROSS-LINGUISTICALLY.

As definite entities, pronouns are generally incompatible with articles or deictics - \*that him, \*the she, \*a her, etc. Therefore, analyzed as phrases, the combinations in Tables 2 and 3 would be anomalous or, at the very least, puzzling. At the same time, there is *something* phrasal about these constructions in this regard, since there are no first and second personal pronouns, a fact that would follow diachronically from the *phrasal* origin of pronouns, since the demonstratives are incompatible with first and second person (see footnote 8).

(36) THE PROCLITICS *CO*, *CAM*, *'I*, AND *CARAM* AND THEIR DEMONSTRATIVE HOSTS SELECT EACH OTHER.

We can account for this by stipulating that the proclitics are lexically specified as attaching only to demonstratives but not to just any demonstratives – they attach only to the subset of demonstratives that may appear in Tables Two and Three. And the demonstratives themselves attach to no other proclitics in the language (and there are many). That is, there is a *mutual* selection by the proclitic for these demonstratives and vice-versa. This mutual selection is easily accounted for if the resultant forms are lexical items, since mutual selection is a common property of morphological paradigm relations.

(37) THE CELLS OF THE PERIPHRASTIC PARADIGMS SHOW INNOVATIONS IN MEANING.

As we saw above, the temporal demonstratives are distinguished semantically by marking relative temporal distance from the moment of utterance. Thus, **cara** means 'past' and **pacara** means, roughly, 'exist in the past'. But in the cells in Table Three, **cara** and **pacara** do not contrast temporally but are instead distinguished for gender, with **cara** marking neuter and **pacara** marking non-neuter gender. Consider their meaning differences outside the paradigms:

(38)    **tarama'**        **cara**            **ne**  
           man            that:past        recent:past  
           *'that recently present man'*

(39)    **tarama'**        **cara**            **pane**  
           man            that:past        distant:past  
           *'that long ago man'*

(40)    **tarama'**        **pacara**        **ne**  
           man            in:the:past     recent:past  
           *'(the) man (who existed) recently'*

(41)    **tarama'**        **pacara**        **pane**  
           man            in:the:past     distant:past  
           *'(the) man (who existed) a long time ago'*

This innovation in meaning, i.e. the non-monotonicity of the meaning of these pronouns, is easy to grasp if they are words, but it is very difficult to understand if they are phrases.

(42) NOTHING MAY INTERVENE BETWEEN THE PROCLITIC AND THE DEMONSTRATIVE.

This is easily explained if the periphrastic pronoun is a lexical item, though it could be predicted in other ways, e.g. by subcategorization of the relevant clitics for specific hosts, as discussed in (36) above. Still, inseparability of parts is an oft-used diagnostic for word-hood and so (42) supports the analysis of these pronouns as words.



(43) STRESS GOES ON THE FINAL SYLLABLE OF THE ENTIRE CONSTRUCTION (unless it is stress-avoiding), just as morphologically simple words in the language; it otherwise goes on the final syllable of each, outside of these paradigmatic constructions ('=stress; **pane** and **ne** are never stressable, even when appearing without a demonstrative):

- (44) a. **caram paca'** [karam pa'ka?]  
 b. **caram pacara pane** [karam paka'ra pane]

The pronunciation of these constructions is accelerated in the first syllables, relative to the speed/timing of syllables in separate words of equal numbers of syllables. This is solid evidence that these pronouns are not merely run-of-the-mill phrases in Wari', but are at least partially lexicalized.

(45) **NE** AND **PANE** ALWAYS OCCURS WITH **PACARA** OR **CARA** IN PRONOUNS, BUT OCCUR INDEPENDENTLY OTHERWISE, as in (46)-(48).<sup>12</sup>

- (46) **Ta** **tomi'** **hwet** **hwein cara** **ca** **querec**  
 INFL:rf speak approach 2p-3n that:past INFL:rp/p see

**hwe cara ne.**  
 2p that:past recent:past  
*'Don't tell that which you just saw.'*

- (47) **Pain** **cara** **ca** **tomi' napat xun taramaxicon**  
 prep:3n that:past INFL:rp/p speak slander 1pincl chief

**pane.**  
 distant:past  
*'That (incident) long ago when we spoke out against the chief.'*

- (48) **Pacara** **xim ne.**  
 in:the:past night recent:past  
*'It's late.'*

This obligatory juxtaposition, found exclusively in the pronominals, offers further support for the proposal that these constructions are functioning as paradigm cells, i.e. words.

(49) **PACARA NE** AND **PACARA PANE** ARE INTERCHANGEABLE WITH **PAIN CARA NE**, **PAIN CARA PANE** EXCEPT IN THE PARADIGMS.<sup>13</sup>

Examples (50)-(55) show their interchangeability. Examples (56) and (57) show that this is not possible when they are used in pronouns.

- (50) **'Ane** **ca** **wari'** **mao** **caca** **pain** **cara**  
different INFL:rp/p person go(sg) 3p prep:3n that:past  
**pane.**  
distant:past  
*'But they were people long ago.'*
- (51) **'Ane** **ca** **wari'** **mao** **caca** **pacara** **pane.**  
different INFL:rp/p person go(sg) 3p in:the:past distant:past  
*'But they were people long ago.'*
- (52) **Xi** **wara** **tomi'** **xun** **Xijam** **mahu'**  
INFL:irr already speak 1pincl:rf-3sm masc:name 2p-1s  
**pain** **cara** **pane.**  
prep:3n that:past distant:past  
*'Well, you didn't say anything about us going to talk to Xijam.' (lit: 'Because you didn't (say) to me, "Let's talk to Xijam" long ago.')*
- (53) **Xi** **wara** **tomi'** **xun** **Xijam** **mahu' pacara**  
INFL:irr already speak 1pincl:rf-3sm masc:name 2p-1s in:the:past  
**pane.**  
distant:past  
*'Well, you didn't say anything about us going to talk to Xijam.' (lit: 'Because you didn't (say) to me, "Let's talk to Xijam" long ago.')*
- (54) **Pain** **cara** **pane** **xere,** **'om**  
prep:3n that:past distant:past siblings:1s not:exist  
**ca** **'ac** **'i** **ma'** **wa** **pane.**  
INFL:rp/p like n that:prox:hearer inf distant:past  
*'Long ago, my brothers, it wasn't like that.'*
- (55) **Pacara** **pane** **xere,** **'om** **ca** **'ac**  
in:the:past distant:past siblings:1s not:exist INFL:rp/p like  
**'i** **ma'** **wa** **pane.**  
n that:prox:hearer inf distant:past  
*'Long ago, my brothers, it wasn't like that.'*

Now compare:

- (56) a. **co pacara ne** 'that recently absent masculine one'  
b. **\*co pain cara ne**
- (57) a. **cam pacara pane** 'that long-absent feminine one'  
b. **\*cam pain cara pane**

Only the shorter form is acceptable as a pronoun.

(58) DEMONSTRATIVE PRONOUNS CAN OCCUR AS ANSWERS TO QUESTIONS, THOUGH NEITHER PART ALONE CAN BE:

- (59) a.     **Ma'**                **wari'** **ma'**                **quem?**  
               that:prox:hearer            person that:prox:hearer            referent  
               *'Who is it?'*
- b.     **Co ma'**.  
               m that:prox:hearer  
               *'(It is) he.'*
- c.     \***Co**.  
       d.     \***ma'**.

To conclude, many of the constraints above are, to my mind at least, strong enough individually to warrant analyzing the cells of Tables 2 and 3 as LCs. Certainly, their cumulative effect seems to lead unambiguously to the conclusion that they simultaneously manifest properties of lexical items and phrasal categories. They are in one sense, therefore, idioms. But the label 'idiom' suggests something outside the mainstream of the morphosyntax of a language, whereas these pronouns are a core part of the systematic grammar of Wari', as are the complex predicates of Persian discussed by Goldberg (to appear) and other examples of Liminal Categories in section 1 (cf. Booij (2002) for discussion of idioms and periphrastic paradigms).

The question arises as to whether there is evidence in Wari' for other LCs. In fact, there is such evidence and it is especially interesting for our present discussion because other LCs in Wari' appear to illustrate stages of development more and less advanced, respectively, than the demonstrative/personal pronouns just analyzed. The first example I want to consider involves Wari' kinship terms.

### 3.2. Kinship terminology

Wari' has two sets of kinship terms, which I will here label **SIMPLEX** and **COMPLEX**. Complex kinship terms in Wari' have an internal composition that suggests a periphrastic origin similar to demonstrative pronouns. But the complex kinship terms are nonetheless no longer liminal. They are now fully words in all aspects. In the analysis I propose below, this is because Wari' kinship terms have been completely grammaticalized.

Kinship terms are discussed in detail in Everett & Kern (1998, 434ff). There are two formation classes of kinship terms in Wari'. The first includes what Everett & Kern (1998) call **–xi' nouns**, where **–xi'** is the first-person plural inclusive possession suffix. Only inalienably possessed nouns take possession suffixes and these in turn can be inputs to other word-formation rules, as discussed in E&K, 235ff. In these forms the citation or base for the paradigm is first person plural inclusive. The first person singular inflection

of six of the terms is suppletive; otherwise they all inflect for possession like common – *xi'* nouns. The complete list of –*xi'* nouns, all in their '1pl inclusive' forms, is given below (first person singular alienably possessed forms are listed in (s)).

### *Simplex*

(60)	a.	<b>'aramanaxi'</b>	<b>(<i>'aramana</i>)</b>	'sister' (lit: female of the species; male ego)
	b.	<b>cainaxi'</b>	<b>(<i>caina</i>)</b>	'daughter (female ego)
	c.	<b>cawinaxi'</b>	<b>(<i>cawiji</i>)</b>	'son' (female ego)
	d.	<b>humajixi'</b>	<b>(<i>humaju</i>)</b>	'children (female ego)
	e.	<b>japinaxi'</b>	<b>(<i>wijapi</i>)</b>	'wife's mother'
	f.	<b>jinaxi'</b>	<b>(<i>jina</i>)</b>	granddaughter (male ego, or female ego's daughter's daughter)
	g.	<b>manaxi'</b>	<b>(<i>mana</i>)</b>	'wife' ('hole'; <b>mana</b> 'my wife/my hole')
	h.	<b>namorinaxi'</b>	<b>(<i>namori</i>)</b>	'wife's sibling'
	i.	<b>tamanaxi'</b>	<b>(<i>tamana</i>)</b>	'husband's mother'
	j.	<b>taramajixi'</b>	<b>(<i>taramaju</i>)</b>	'brother' (male of the species; female ego)
	k.	<b>taxixi'</b>	<b>(<i>taxi</i>)</b>	'husband'
	l.	<b>wijinaxi'</b>	<b>(<i>wiji</i>)</b>	'grandchild' (female ego's son's child)
	m.	<b>winaxi'</b>	<b>(<i>wina</i>)</b>	'grandson' (male ego, or female ego's daughter's son)
	n.	<b>xerexi'</b>	<b>(<i>xere</i>)</b>	'sibling'
	o.	<b>xinaxi'</b>	<b>(<i>wixi</i>)</b>	'sister's son' (male ego)
	p.	<b>xi'</b>	<b>(<i>na</i>)</b>	'mother'

### *Complex*

The second set of Wari' kinship terms are more complex structurally, at least from a diachronic perspective. It may be the case that these kinship terms are more recent, evolving in response to the society's 'decision' to create kinship terms more specialized than those in (60). They are used as special citation kinship forms. These *co*-kinship terms, as they are referred to in Everett & Kern (1997, 375ff), are interesting because they arguably show a higher degree of grammaticalization than the pronouns in Tables 2 and 3. They seem to have developed from relative clauses and share characteristics of quotatives (see section 4).

These seem not to be active derivations since: (i) they are not productive; (ii) native speakers do not seem to think of them as clauses, finding it strange when we ask about the subparts of the words (though they do not find it strange when we ask about the same morphemes in clauses); (iii) unlike with personal pronouns, glottal stops may not appear internal to kinship terms, further supporting the claim that these are now words. So, for example, the word-initial glottal disappears when the clitic *co* 'm/f realis past/present' prefixes to **'aji** 'my older brother' to form **cwaji' ma** 'your older brother'. In the case of **cwaji' ma**, *co* is now simply part of the word, not even a prefix; (iv) they co-occur with collective particles, possessors, and demonstratives just like other nouns.

*Co* kinship terms are (diachronically) structured in the following way. The INFL morpheme (Everett (1998)) *co* precedes the first person singular form of the kinship term

and a Tenseless active VIC follows it. (The are thus, as we see directly, similar in some ways to quotatives, though only diachronically.)

- (61) a. **cowere'** 'our (incl) older sister'  
 b. **co** **-we** **-'iri'**  
 INFL:m/frp/p -older:sister:1s-1pincl  
 Literally: '(the one) whom we (incl) call 'my older sister'
- (62) a. **coxari'** 'our (incl) younger sister'  
 b. **co** **-xa'** **-'iri'**  
 -younger:sibling:1s  
 Literally: '(the one of whom) we (incl) (say) 'my younger sibling')
- (63) a. **conemiri'** 'our (incl) brother-in-law'  
 b. **co** **-nem** **-'iri'**  
 -brother:in:law  
 Literally: '(the one of whom) we (incl) (say) 'my brother-in-law')
- (64) a. **cotere** 'our (incl) father'  
 b. **co** **-te** **-'iri'**  
 -father:1s  
 Literally: '(the one of whom) we (incl) (say) 'my father')
- (65) a. **coparut** 'our (excl) maternal grandmother'  
 b. **co** **-pa** **-urut**  
 maternal grandmother:1s -1pexcl  
 Literally: '(the one of whom) we (excl) (say) 'my maternal grandmother')
- (66) a. **copama** 'your maternal grandmother'  
 b. **co** **-pa'** **-ma**  
 -2s  
 Literally: '(the one of whom) you (say) 'my maternal grandmother')
- (67) a. **coxaca** 'his younger sibling'  
 b. **co** **-xa'** **-ca**  
 -younger:sibling:1s -3s  
 Literally: '(the one of whom) he (says) 'my younger sibling')
- (68) a. **cwajicama** 'her older brother'  
 b. **co** **-aji'** **-cama**  
 -older:brother:1s -3f  
 Literally: '(the one of whom) she (says) 'my older brother')

Again, *co-* kinship terms are *words* and should no longer be analyzed as synchronically complex.

Consider examples like *coxaca cwa'* 'this younger sibling of his' where the demonstrative precedes the *co-* kinship term. At first blush, it would appear that the sequence of *-ca* followed by *cwa'* is redundant (cf. (67)). There is no redundancy in spite of appearances, however, because the *-ca* '3s' of the kinship term is a diachronic vestige, not the result of synchronic affixation. If this were not the case, the structure would incorrectly be predicted to be ungrammatical when *cwa'* is added.

Consider again the fact that these kinship terms form a tighter phonological unit than other nouns derived from *co-*. This can be seen in certain phonological changes which take place in the derived form, in particular, asyllabification and glottal deletion, neither of which are otherwise found across word boundaries. For example, when *co-* precedes '*aji*' 'my older brother' as in (69), the word-initial glottal plosive on '*aji*' [ʔayiʔ] is dropped and *co-* becomes a labialized dorso-velar plosive. Crucially for our account of personal pronouns, this phonological change does not occur anywhere else when *co* precedes a word beginning with a glottal-vowel sequence:

- (69) a.     **ma'**                    **co**                    **'aca**    **na?**  
           that:prox:hearer        INFL:m/frp/p    cry:s    3s:rp/p

*'Who is crying?'*

- b.     **\*ma' cwaca**    **na?**

Other phonological evidence for the claim that these *co-* kinship terms are words is found in vowel harmony and stress placement. Vowel Harmony is identified by Everett & Kern (1998, 377ff) as an exclusively word-internal process. Yet it happens in these kinship terms:

- (70)    **cotere'** (co-te-'iri)    →    [kote'reʔ] 'our father'  
 (71)    **coturut** (co-te-'urut) →    [kotʔrʔʔ]  
 (72)    **cote** (co-te) + hwe    →    [ko'te h<sup>w</sup>e], \*[kote'h<sup>w</sup>e]  
    2p

Example (72) shows that a non-first person clitic is not analyzed as part of the word, since the special citation form includes, optionally, first person plural marking but no other. Thus the only source for second person in (72) is as a clitic.

Let us recap, then, the major differences between kinship terms and personal pronouns in Wari'. Wari' pronouns are Liminal Categories. They are special constructions in the process of grammaticalization, midway between phrases and words. Complex *co* kinship terms, on the other hand, are fully grammaticalized now as words, though they seem to have derived from LCs historically.

## 4. The Intentional State Construction (ISC)

### 4.1. Introduction

We come now to the most unusual and perhaps most enlightening LC thus far identified for Wari', what I have labelled the INTENTIONAL STATE CONSTRUCTION (ISC). The basic meaning of the construction is 'X SAID Y to Z'. Thus the principal use of this construction is for reported speech, usually, but not always, interpreted as direct speech. However, the construction has a wide variety of other uses and thus a small constellation of closely-related meanings, typical of constructional meanings.<sup>14</sup> These meanings seem to derive from a common characteristic of Amazonian ethnolinguistics. This is the propensity to report (or speculate on) another's thoughts by putting words in their mouth (whether human, nonhuman, or even, in some cultures, inanimate, as in reporting on the weather by, e.g. "The sky says it is going to rain", a common type of construction in, for example, Pirahã, among other languages), i.e. by reporting a real or hypothetical statement but "meaning" what someone thought, rather than what they said, and not even that literally, as the Pirahã use shows. Thus Wari' quotatives have subdivided over time into various sub-constructions for indicating, condition, purpose, future, refusal, emphasis, etc. (see Everett & Kern (1997, 58ff) for details). I therefore refer to all these here under the general term Intentional State Construction.<sup>15</sup>

I will defer an analysis of the entire range of ISCs for future study. Here I want to focus exclusively on their shared features, relevant to the present analysis of LCs. ISCs all share two crucial sets of characteristics: (i) the internal syntax of their predicate is that of a clause or sentence and (ii) the external syntax and phonology of that predicate are that of a verb. The external, verb-like features of the ISC derived predicate are given in (73):

(73) Verb-like features of ISC predicates:

- (a) The embedded sentence occurs in the verb position of the matrix clause.
- (b) The embedded sentence may undergo predication modification, cliticization, and compounding just like any other verb.
- (c) Only the last syllable of the embedded sentence carries primary stress, just as the last syllable of a verb or verb-compound carries primary stress. (This would violate the normal stress rule that places primary stress on the final syllable of each word, were it not for the fact that the embedded sentence is now functioning as a single verb-like predicate.)
- (d) There is no other potential predicate/verb in the matrix clause.
- (e) The inflectional clitics must follow the embedded sentence.
- (f) ISC predicates are the only examples of multiple clausal embeddings in the language.

Each of the points in (73) are vital and are examined in detail below.

But ISCs have the *internal* syntax of clauses or sentences:

(74) Phrase-like features of ISC predicates:

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

(b) They are subject to constraints on reference relative to the main clause which would otherwise violate the 'anaphoric island constraint' (Postal 1969).

Wari' ISCs differ significantly from the cases of complex predicates and periphrastic exponence discussed in previous sections of this paper. For example, (i) there is no intersection of features, nor distributed exponence, as might be expected from a periphrastic morphology perspective; (ii) there is no semantic 'drift' or specialization nor, in fact any non-compositionality except for one fact - the construction containing the ISC includes one meaning 'to say/to think' not found in any of its parts. Thus, they are not immediately accounted for by any of the proposals reviewed to this point. Before considering some examples, let us briefly review the relevant Wari' surface syntax, necessary to understand these examples.

## 4.2. An overview of Wari' (Oro Nao) grammar

In this section only the barest sketch of Wari' grammar is provided. The reader is urged to consult Everett & Kern (1998) or Everett (1998) for a more detailed account.

### 4.2.1. Constituent Order

Wari' is a VOS language. The verb always precedes direct and indirect objects, which in turn precede the subject. However, there are two basic types of nonembedded, root sentences which manifest the VOS order somewhat differently. These are simple V-initial sentences and sentences which begin with a word indicating mode or illocutionary force, what Everett & Kern (1998, 43) label COMP(lementizer) sentences (a label I do not use here). Examples (75) – (77) show verb-initial sentences while (77) – (80) illustrate sentences with one of the small set of preverbal modal markers. In both types of sentence, tense must occur in the second position of the sentence, i.e. immediately to the right of the first word.

#### Verb-initial sentences

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

(76) **Ten ta wao'.**  
weave pass:3stype of basket  
*'Baskets are woven.'*



- (77) **Mi' non -on con hwam hwijima' mon tarama'.**  
 give 3p:rp/p -3pm prep:3sm fish children coll man  
*'The men gave the children fish.'*

#### Sentences with preverbal modal markers

- (78) **Ma' co tomi' na?**  
 that:prox:hearer INFL:m/f:rp/p speak 3s:rp/p  
*'Who is speaking?'*
- (79) **Ma' co tomi' ca?**  
 3sm  
*'Of whom is he speaking?'*
- (80) **Ma' ca para 'aca ca pije ma'?**  
 that:prox:hearer INFL:nrp/p why cry 3sm child that:prox:hearer  
*'Why is that child crying?'*
- (81) **'om ca mao ca.**  
 not:exist INFL:nrp/p go(sg) 3sm  
*'He did not go.'*

#### 4.2.2. Inflectional material

Tense, person, number, and gender are all obligatory in Wari' clauses and are manifested in two distinct clausal positions. In verb-initial sentences, all four of these categories appear on a clitic immediately following the verb. These clitics are labelled *verbal inflectional clitics* (VIC) by Everett and Kern (1997, 6). This is illustrated in (82) and (83), and (75) - (77) above:

- (82) **Mao na 'orowao'.**  
 go(sg) 3s:rp/p masc. name  
*'orowao' went.'*
- (83) **To' na -on 'orowao'.**  
 hit 3s:rp/p -3sm masc. name  
*'He hit 'orowao'.*<sup>16</sup>

As (83) shows, the VIC agrees with both the subject and object. Example (84) illustrates that the VIC agrees with embedded sentences as well, when these are verbal arguments (shown by cosubscripting). It also shows the normal place for an embedded sentence, i.e. postverbally (and with each word of the embedded sentence stressed separately). This latter fact is important because it provides us with a diagnostic for identifying the verb distributionally, apart from meaning. That is, the material preceding the VIC is the verb.

- (84) **Tomi' tain<sub>i</sub> [ca mi' ne]<sub>i</sub>.**  
           **ta'-in**  
 speak 1s:rf-3n INFL:nrp/p give (die) poss:1s  
*'I will tell you [about my death].'* (lit. *'...about my giving'*)

When modal material precedes the verb, however, as in (78) - (81), it is immediately followed by yet another clitic (labeled infl by Everett & Kern (8ff.)), marking tense and agreement with the gender of the item in sentence-initial position, illustrated in (80) and (81) above and repeated here:<sup>17</sup>

- (85) **Ma' ca para 'aca ca pi je ma'?**  
 that:prox:hearer INFL:nrp/p why cry 3sm child that:prox:hearer  
*'Why is the child crying?'*
- (86) **'om ca mao ca.**  
 not:exist INFL:nrp/p go(sg) 3sm  
*'He did not go.'*

What is important to take away from these examples is that although tense is restricted to second position of the clause, regardless of what constituent appears in first position, the VICs themselves are obligatory and can *only attach to the verb or the ISC predicate*. These VICs are not second position clitics (see Everett & Kern 1998 for extensive discussion).

#### 4.2.3. ISCs

We are now equipped to consider the ISCs and their predicates (though, again, much detail from Everett & Kern (1998) is omitted. I begin by considering the basic, quotative form/function of the ISC. The LC portion of the clause, that portion manifesting the properties in (73) and (74) above, is bracketed:

#### Quotative

- (87) **[Ma' co mao] na -in Guajará**  
 that:prox:hearer INFL:m/frp/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.'*
- (88) **[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).'*)

Notice that there is no verb 'to say' in these sentences. It is implied from the structure. The content of this implied verb appears in the verb position. It is this special liminal use of the embedded sentence that is used by the speakers to recover the meaning

of 'to say'. In addition to this basic use of the ISC, there are many other uses, involving both function and form changes (the latter not relevant to this paper, however), including:

### Supposition – used to express assumed hearer supposition

- (89) [Hwara'                      'opa                      tara                      ma']  
          big(sg)                      strength-1s(strong)    3s:rf                      that:prox:hearer  
          hun                      panxi -ta'?'  
          hwe                      -on  
          2p:rp/p-3sm    child    -1s  
          *'Do you think my son is strong?' (lit: 'Do you (think) of my son, "He is probably strong"?)*

### Purpose – used to express purpose of a participant

- (90) a.    'I'            nana            mapac            'oro    narima'.  
          tear    3p:rp/p corn                      coll    woman  
          [Ma'                      ta                      'ep                      xi'            capam'  
          that:prox:hearer                      INFL:rf                      grind:corn                      1pincl cornbread  
          'iri']                      nana                      pane.  
          1pincl:rp/p                      3p:rp/prem: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.')*

### Conditional

- (91) [Mo            xi            xirao' mam'            caca    -parut  
          conditional    INFL:irr            write before:going    3pm    -1pexcl  
          pain            papel xi'] na.  
          pain:3nletter    dub    3s:rp/p  
          *'If they had written us a letter before going..., (but) it (is) not so.'*

### Refusal – used to express negative outcomes based on imputed intentions

- (92) 'Om            ca            [pi'            ra    na]            ne  
          mapac.  
          not:exist                      INFL:nrp/p            finish                      2s:rf    consent                      3n    corn  
          *'The corn will never finish.' (lit: 'The corn does not consent (when it is told), "Be finished!"')*

### Emphasis – a particular kind of speaker exclamation

- (93) [Mija na            na            ma']                      hwe                      xi'.  
          much 3s:rp/p                      consent                      that:prox:hearer                      2p:rp/p dub  
          *'It is really too much!' (lit: "'It is a lot consenting," (say).)*



### Future tense derived predicate and supposition:

- (98) [[['Pan' 'am 'ta'] tara xa'  
 fall(sg) be:lost 1s:rf 3s:rf younger:brother:1s  
 ma'] 'ina].  
 that:prox:hearer 1s:rp/p  
*'I thought my younger brother was going to get lost.'* (lit: *'["My younger brother will probably (say), 'I will get lost,' "I (thought)].'*)<sup>18</sup>

### Comparative derived predicate and sequential:

- (99) [[['Ac ca 'an noc xa 'ca 'ac]  
 like INFL:rp/p take(sg) dislike hide(steal) 3sm travel  
 ca -pa'] na].  
 3sm -1s 3s:rp/p  
*'Then it (came) to me (that) it seemed like he had stolen.'*

### Imperative sentence and sequential sentence:

- (100) [[['Ac ca taramaja -ra 'ac] ca -pa'] na  
 like INFL:rp/p work 2s:rf travel 3sm -1s 3s:rp/p  
 pane 'ira].  
 rem:past prog:past  
*'Then it seemed like he said to me, "Work!"'* (lit: *'[(Then) it (was that) it seemed like he (said) to me,] "Work!"'*)

Again, these combinations of embedded sentences are significant, since multiple embeddings are otherwise not allowed in the language. We are now nearly prepared to proceed to an analysis of ISCs.

#### 4.2.4. Analysis

##### 4.2.4.1. Introduction to Role and Reference Grammar

Before beginning an analysis, however, we need a brief introduction to RRG, the model I believe to be crucially implicated in this analysis.

Bresnan (2001, 334) refers to, RRG, Autolexical Syntax (Sadock (1993)), Lexical-Functional Grammar (Bresnan (2001)), and a few other models, as *parallel correspondence theories* (PCT). As a PCT, RRG does not build grammatical representations up serially via a recipe of derivational steps (as in, say, Chomsky's (1995) Minimalist Program), but it instead simultaneously generates separate structures, viz. the components of the *Layered Structure of the Clause*, the lexico-logical representation (lexical semantics), the operator projection (tense, aspect, mood, definiteness, etc.), focus structure (discourse and interactional salience and scope relations), and the phonology (among others). These parallel structures are connected via a set of Linking Rules - an algorithm connecting the structures, as the name implies; see Van Valin & LaPolla

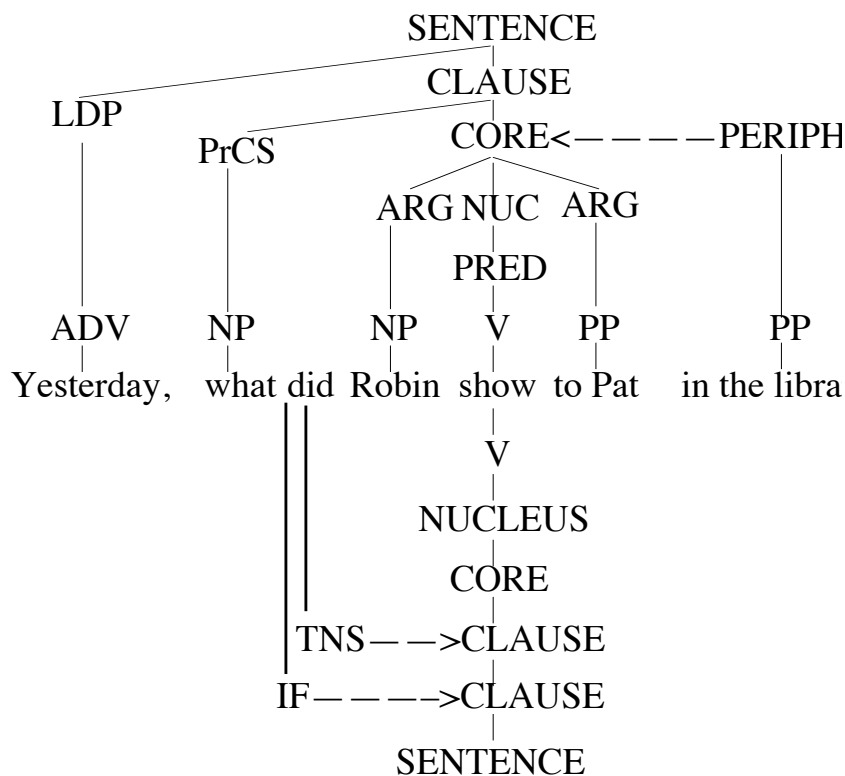
(VVLP) (1997, 518ff). As Bresnan (2001, 336) points out for LFG, so too in RRG, the linking "... relates nonhomogeneous structures and so is formally nontransformational."

In RRG, the crucial components of the clause are the predicate and its arguments, the CORE, and the nonargumental material, i.e. the PERIPHERY. Each syntactic unit of the clause is directly motivated by a semantic element, as shown in Table Four (VVLP, p27ff):

<i>Semantic Element(s)</i>	<i>Syntactic Unit</i>
Predicate	Nucleus
Argument in semantic representation of predicate	Core argument
Non-arguments	Periphery
Predicate + arguments	Core
Predicate + arguments + non-arguments	Clause (=core + periphery)

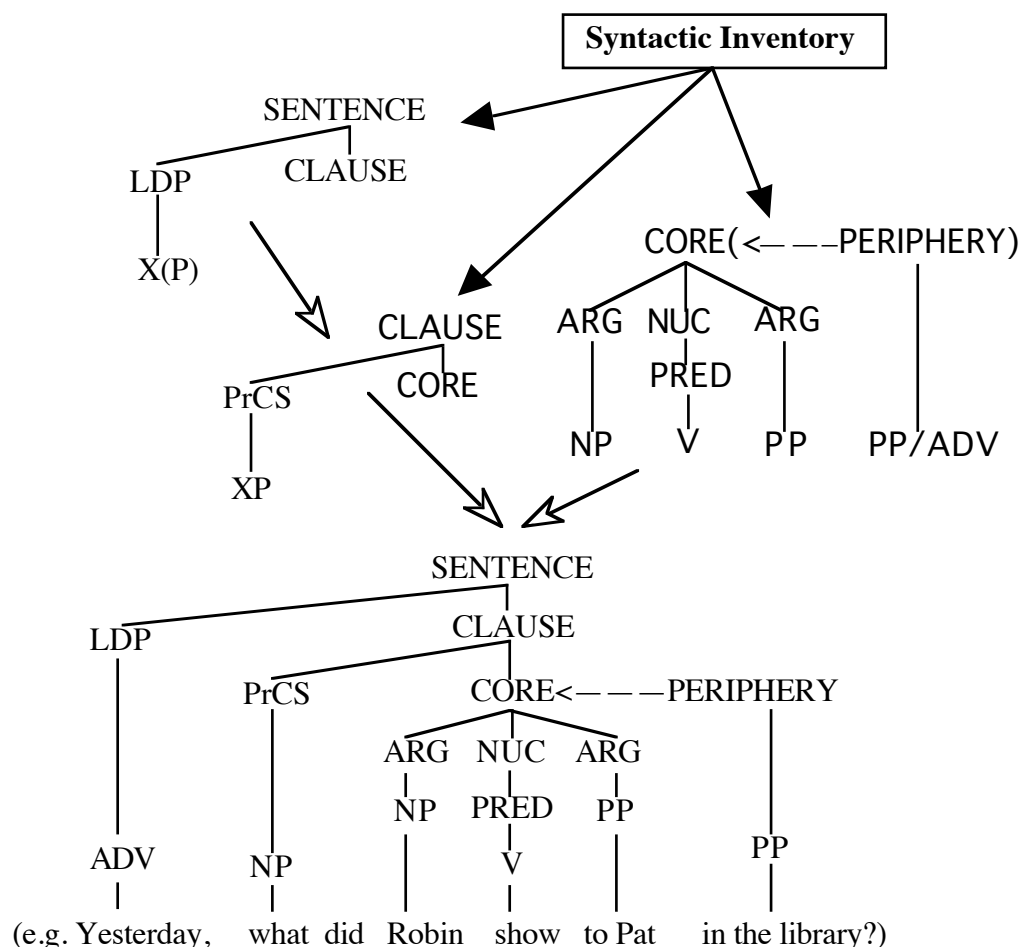
These are illustrated in tree format in Figure 1, an example of what RRG terms the *Layered Structure of the Clause*:<sup>19</sup>

Figure One: **LAYERED STRUCTURE OF THE CLAUSE**



In RRG, sentences result from combining templates in a language's constructional inventory, and are not the output of X-bar theoretic rewrite rules, as illustrated in Figure 2.

Figure 2: COMBINING SYNTACTIC TEMPLATES FROM THE SYNTACTIC INVENTORY



In other words, RRG sentences are the result of combining independently necessary constructions and subconstructions into a larger structure.

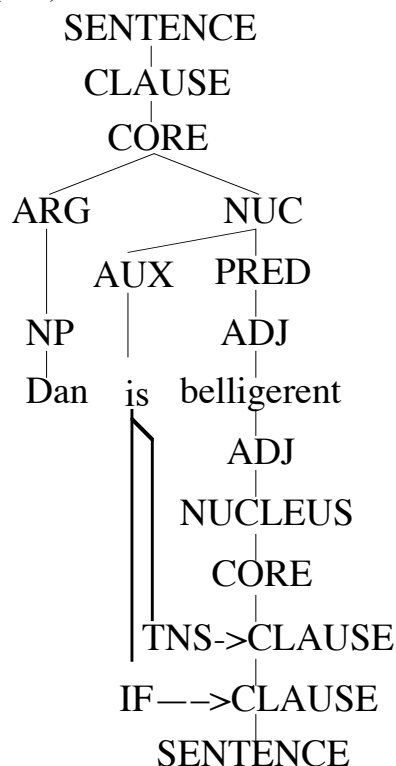
Some of these components of clausal structure in RRG translate directly into other theories. But several do not. For example, RRG rejects the Verb Phrase as a constituent of the clause. I hasten to add, however, that the CORE is not merely an RRG way of talking about VPs. Rather, the CORE is a nonendocentric, nonX-bar-theoretic constituent of the clause, directly motivated by the semantics (see VVLP, 31ff for details).<sup>20</sup>

However, what is crucial for the present discussion is the syntactic unit labeled the NUC(leus). The NUC is the syntactic reflex of the semantic predicate. The nucleus of any syntactic phrase is not a function of the syntactic category of the phrase, but, rather, indicates the *locus of predication* (or reference, in the case of NPs) of the phrase (indeed, phrasal categorial labels are of secondary importance in RRG).

This is illustrated in a simple English example:

(101) Dan is belligerent.

(102)

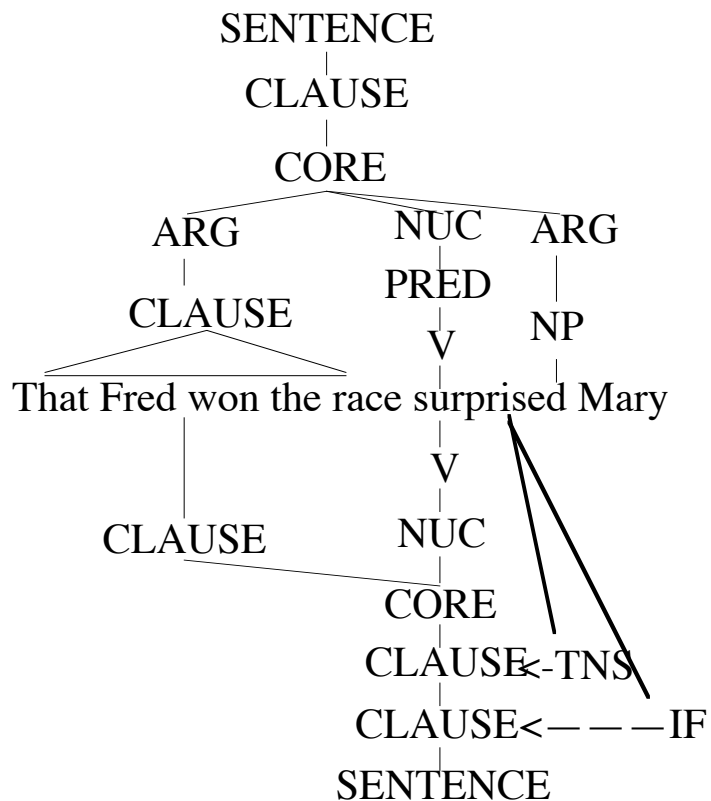


In general, terminal functional nodes in an RRG tree, e.g. ARG(ument) and NUC, will be dominated or 'linked' to a word. This is the default case and is *symmetrical linking*. Relatively rarely, however, a terminal functional node is 'asymmetrically linked' to a phrase. This is illustrated in (103) and (104) for English, where an entire clause or CORE may be linked to the initial ARG position. The point to be made here is that asymmetrical embedding is recognized and necessary in RRG, independently of the Wari' facts we are discussing. It provides the key to the Wari' analysis, as we see in the next section.

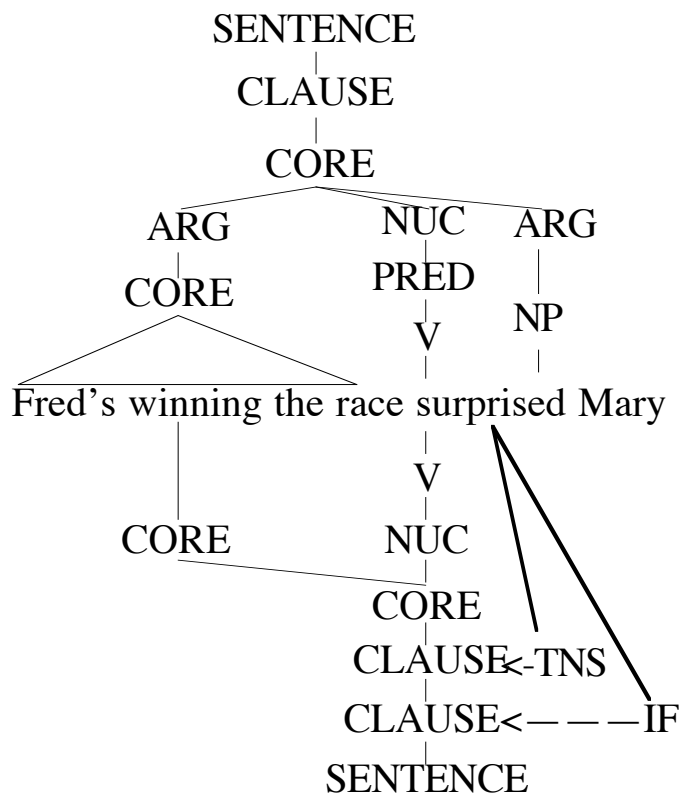
On the other hand, some kinds of asymmetrical embedding would be marked in RRG. Among these would be clauses and phrases within word structures, what other theories might call XP embedding under  $X^0$ . The existence of this kind of embedding is the key to understanding the Wari' facts, as it was, though in other terms, for Carnie's (see above) analysis of Irish.

(103)





(104)



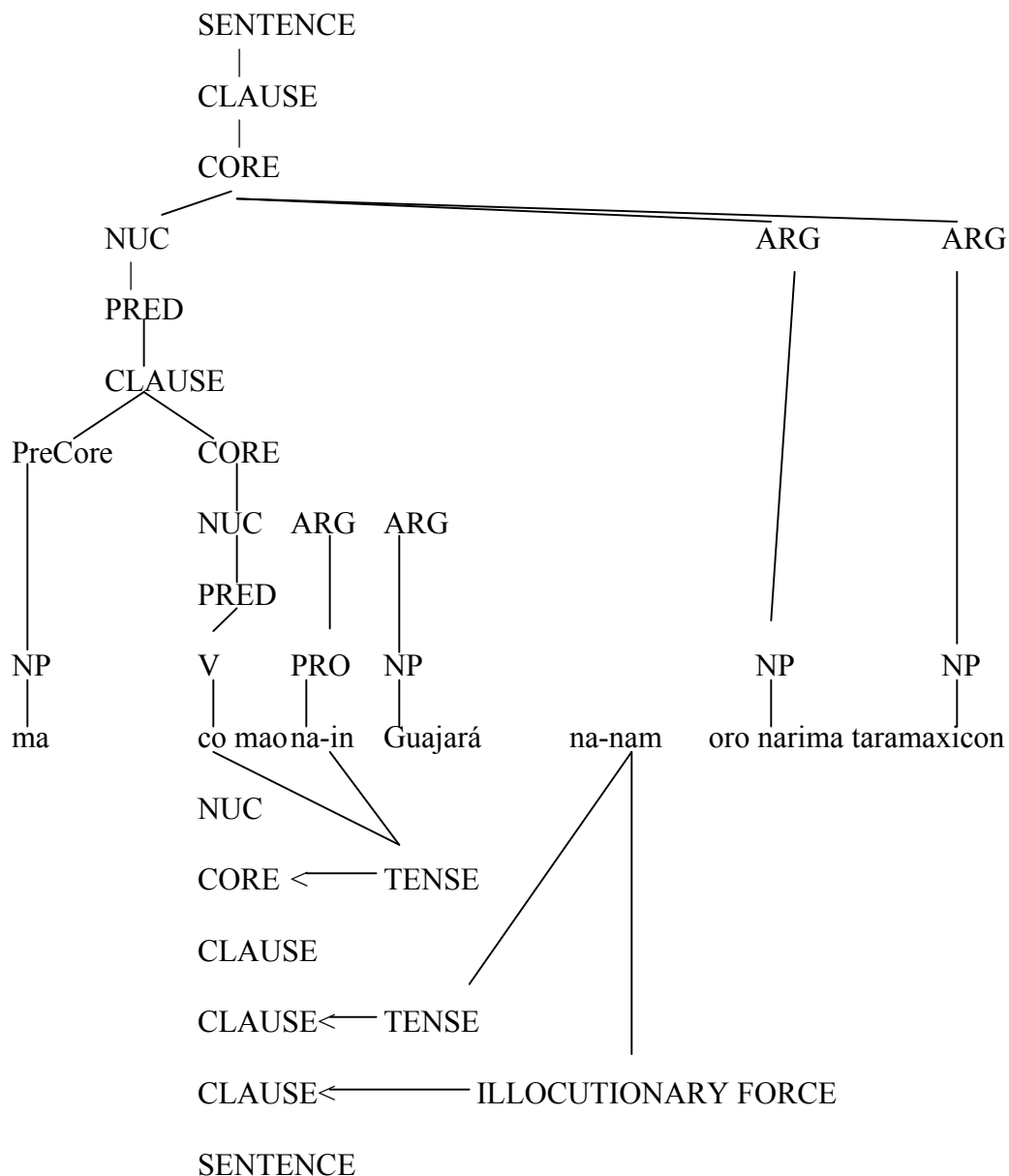
With this introduction to RRG, we are now prepared to take up in earnest the analysis of Wari' ISC predicates.

#### 4.2.4.2. RRG analysis of Wari' ISC predicates

The principal component of my RRG analysis of Wari' ISCs is that the Wari' NUC may dominate a clause, i.e. that it allows asymmetrical juncture, just as the CORE ARG in English examples like (103) and (104) above. So consider the representation of a Wari' sentence like (105) above, repeated here, with the structural analysis in (106):

- (105) [Ma'                      co                      mao] na    -in                      Guajará  
          that:prox:hearer       INFL:m/frp/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.'*

(106)



This analysis thus implies that Wari' is not, properly speaking, a VOS language, but, rather, is a Nucleus-initial language, or 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 predicate, but nothing else. We can express this by (107), referring to NUC instead of Verb:

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

In other words, the embedded clause is the NUC of the ISC as a whole. Because Wari' sentences are (under the RRG analysis) NUC-initial, rather than V-initial, we immediately account for points (73a), (73d), and (73e) above.

For example, (73a) (the embedded sentence occurs in the verb position of the matrix clause) is accounted for because both the verb and the ISC predicate are in the NUC position, not in a 'verb position' per se. (73d) (there is no other potential predicate/verb in the matrix clause) follows because a sentence does not need a *verb*, but, rather, a NUC. And (73e) (the inflectional material must follow the embedded sentence) follows automatically from the statement of inflectional clitic placement in (107).<sup>21</sup>

These results, providing a nearly complete analysis of the word-like characteristics of Wari' ISC predicates, free us from the problematic consequences of the claim made by Everett & Kern (1998, 6ff; 39ff) that the embedded sentence predicate 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 predicate of the ISC is not claimed to be a word, but a NUC, this rather undesirable result is avoided.

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 predicates 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. It only remains to account for stress placement and compounding/postverbal modification in ISC predicates.

At this point, the reader might wonder why I continue to classify ISC predicates as LCs. After all, I have just concluded that they are phrases under NUC and not words. Don't they thereby lose their claim to LC-status? No. This is because by labeling a category 'liminal', I am claiming that it properties that on the surface are shared with both words and phrases. Although in my analysis the common thread running through LCs is their domination by NUC, they are nonetheless liminal in the sense in (108)

(108) LIMINAL CATEGORY: *A Liminal Category of a language, L, shares otherwise mutually exclusive formal and functional properties in common with words and phrases simultaneously.*

Wari' ISC predicates have the properties in (73) in common with words and those in (74) with phrases. The nexus of these properties is NUC. Outside of NUC, they are mutually exclusive.

Let's consider stress placement first. Everett & Kern (1997, 58) state that 'only the last syllable of the embedded sentence [the ISC NUC, DLE] carries primary stress.'

Normally Wari' stress falls on the last syllable of each word. Everett & Kern therefore took the stress facts just stated as evidence that the ISC predicates are verbs, and that they have therefore have undergone a process of word-formation or 'verbalization'.

Under the RRG analysis here, however, there is another account of the facts available. Primary stress placement can be understood as the ranked constraints in (109) (borrowing, notationally at least, from Optimality Theory):

(109) **Primary Stress Placement in Wari':**

- a. Constraint 1: Only one stress per NUC.
- b. Constraint 2: Stress the last syllable of the word.
- c. Ranking: Only one stress per NUC >> Stress the last syllable of the word

Consider for example how this constraint ranking would (constraints being among various ways that the facts might be described) correctly place stress on a concrete example, as in the Tableau below of the relevant portion of example (88) above, repeated here, with stress added (where " = stress):

- (88) [Cao' xi'                      cara"wa]      nana                      hwijima'.  
       eat   1pincl:rf           animal                      3p:rp/p children  
       *'The children will eat food.'* (lit: *"We will eat food," the children (say).'*)

Table Five

Input	Stress Constraint One >>	Stress Constraint Two
["Cao' "xi' cara"wa]	**!	
[Cao' "xi' cara"wa]	*!	*
☞ [Cao' xi' cara"wa]		**
[Cao' xi' carawa]		***!

The NUC stress domain, (108b), outranks/wins from (108a). This means that a word outside the CORE NUC will always receive primary stress on its last syllable. A word within the CORE NUC, however, will not be stressed unless it is the last word of the NUC.

Can this ranking be independently justified? It seems to me that it can. Unmarked stress is described as follows by Everett & Kern (416): '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.' This stress pattern marks predicate focus in Wari', the most common type of focus crosslinguistically (VanValin & LaPolla (1997, 206ff). above, stress can shift depending on focus. In other words, the stress on NUC can be thought of as the default focal stress pattern, with special focus needs allowed to shift this default stress placement. As VVLP (209ff; borrowing from Lambrecht's work, e.g. Lambrecht (1994))) observe, the information structure of a sentence manifests itself partially by an unmarked configuration involving prosody and, usually, stress placement near the NUC constituent. This is exactly what we see in Wari'. Note too what Everett & Kern (1998, 417) say about the similarity between the stress of compound verbs and multiply embedded ISC predicates: '...verb compounds of two or more verb stems also

have two levels of stress. The rightmost member of the compound carries primary stress, while the preceding members carry secondary stress' (see Everett & Kern (417) for examples). Moreover, they go on to say that 'in accordance with the rule of oxytonic primary stress in verbs, derived predicates in verbalized sentences also receive primary stress on the last syllable...' This primary stress can either be borne on the terminal nodes, i.e. words within the predicate or, in the case of Wari', on the central unit of the predicate, the NUCLEUS itself. This is supported in an interesting way. As Everett & Kern point out, postverbal modifiers (**pvm**) do not bear stress. These **pvm**s were thus lexically marked by Everett & Kern as non-stress-bearing. Under the RRG account here, however, no marking of **pvm**s is necessary, their stress avoidance following directly from their semantics. According to RRG a non-predicating member of a NUC compound fails to dominate a PRED node (cf. VVLP 534, Figure 9.6). Therefore, since these **pvm**s do not dominate a PRED node, they are not stressable. The ranked stress constraints proposed in (108), therefore, are empirically justified and completely in line with general patterns of unmarked focus in natural languages.

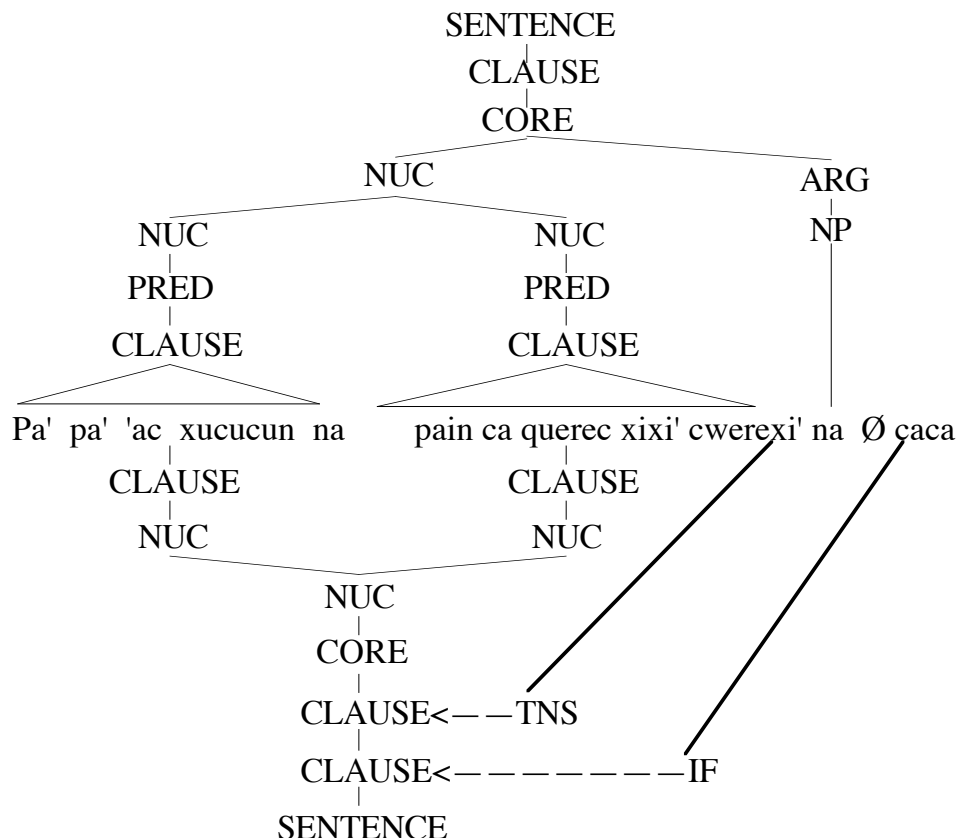
Now let us turn to the relationship between compounding and multiple embeddings in Wari'. This is a crucial link in the argument that ISC predicates are LCs, strongly underscoring their similarity to verbs. The multiple embedded predicates discussed above are, as mentioned, unusual in Wari', because multiple occurrences of embedding in a single sentence do not otherwise occur in the language. That is, so-called complement clauses do not allow degrees of embedding. Therefore, there is no Wari' equivalent to the English sentence in (110):

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

The question which then arises immediately is why Wari' does allow multiple embeddings in the ISC construction. The RRG analysis is able to explain this restriction 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 RRG structural analysis of the multiply embedded sentence in (111):

(111) [[Pa' pa' 'ac xucucun na [pain ca  
 kill kill travel refl:3pm 3s:rp/p prep:3n INFL:rp/p  
 quere xixi' cwere -xi' na] caca] quem].  
 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."']')

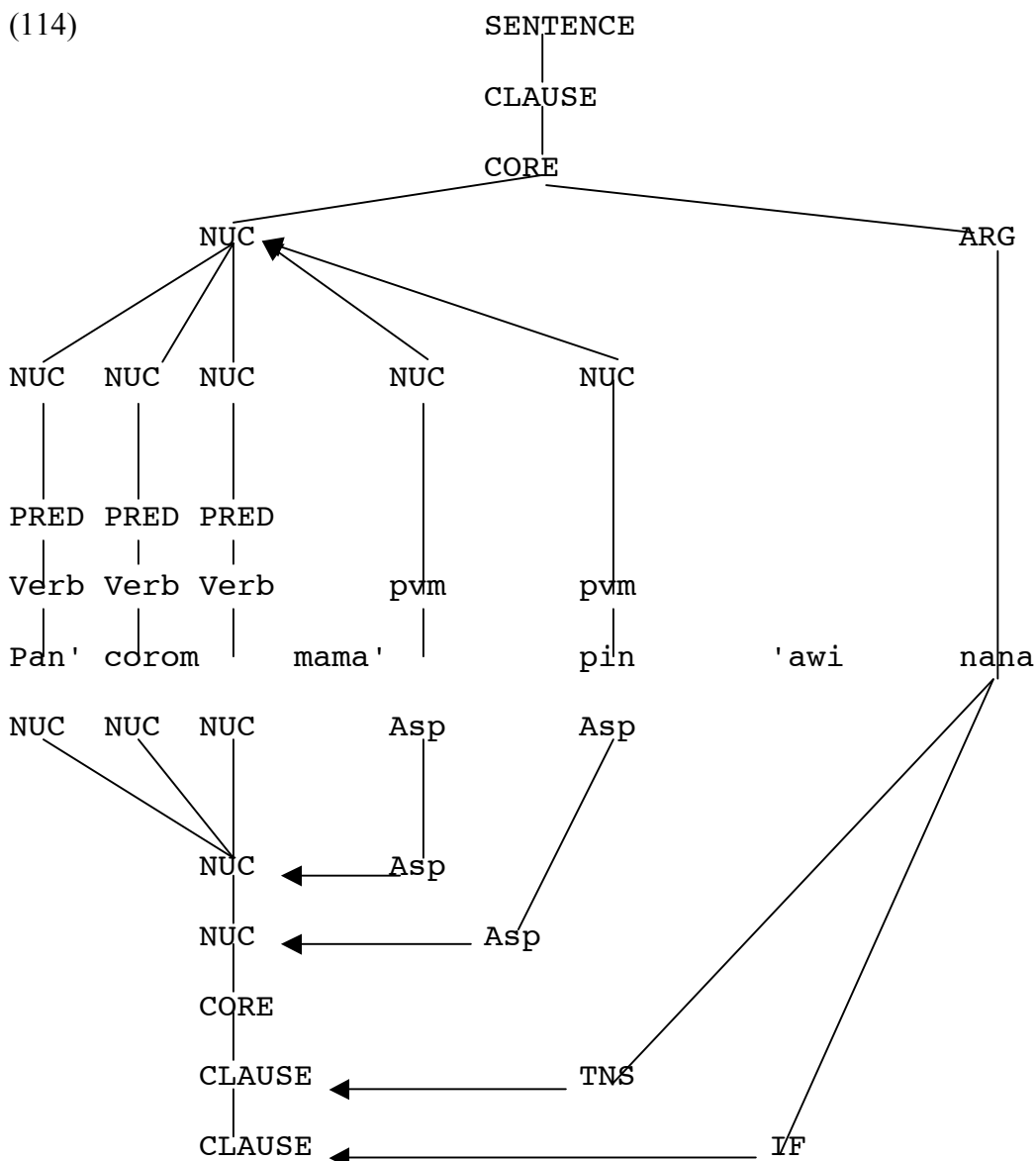
(112)



*'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."J']*)

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 (113) (see Everett & Kern 1998, 379ff):

- (113) **Pan' corom mama'pin 'awi nana**  
 fall:s enter go:p completely completely 3p:rp/p  
*'They all fell into the water.'*



The absence of PRED nodes associated with the **pvm**s follows from the fact that **pvm**s are not predicative. Rather, they modify predicates. (This, as we already saw, also accounts for the failure of **pvm**s to bear stress.)

The analysis of multiple embeddings within the ISC predicate also offers an explanation for the occurrence of **pvm**s with ISC predicates, as illustrated in (45) above. As noted there, **pvm**s only occur in compound verbs and ISCs. If we adopt the analysis of ISCs just given, **pvm**s are nonpredicative NUCs, which may modify the ISC NUC, whether the latter dominates an S or a V. This not only accounts for **pvm** placement straightforwardly, it also accounts for (i) their lack of stress, since, as we have claimed, only NUCs dominating a PRED, i.e. predicating rather than modificational NUCs (categories independently justified and available in RRG) are stressable and (ii) their failure to appear outside of ISCs or compound verbs, since they do not dominate PRED,



i.e. they are strictly modificational. None of these points involves changes to RRG and each is fully compatible with the model as it stands, underscoring the non-ad-hoc nature of the analysis.

The embedded predicate of desiderative clauses is also restricted. It must end with **na** 'consent' and its verb is always in irrealis form. Its containing matrix clause always appears in realis past/present tense.

- (115) [**An**            **xira**   **man**   **panxi -ta'**   **na**]            **'ina**   **me.**  
          take(sg)       3s:irr   wife   child   -1s       consent       1s:rp/p emph  
          *'I wish my son would take a wife.'* (lit: *"My son should take a wife consenting," I (say).'*)

These sentences provide additional support for the RRG analysis. This is because of the fact that **na** is not a **pvm**, but an independent verb. **Na** here bears stress preventing us from analyzing it as a **pvm**. This makes such constructions an even clearer case of compounding of a verb root with a CLAUSE. Such a combination would be strange at the categorial level, but it follows immediately from the analysis here as another case of NUC cosubordination, reinforcing yet again the formal equivalence of verb compounding and multiple embeddings in ISC predicates.

#### 4.3. Implications of this analysis for understanding Wari' morphology

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 (almost of all of which is found in what they call zero-derivation), yet almost no inflectional morphology. That is, the inflectional material, e.g. tense, 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 preposition (with room for discussion about one or two other potential cases of inflection). The RRG analysis proposed here offers a solution to the asymmetry between inflection and derivation in Wari'. As we saw, inflection in Wari' follows the NUC, as it arguably follows the V(erb) in other languages. 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.

The analysis just presented also accounts straightforwardly for some otherwise problematic referential properties of ISC predicates. The relevance of these properties is

best understood in light of the stage-setting constraint in (115) from Bresnan & Mchombo (1995, 189), adapted from Postal (1969):

(116) **Inbound Anaphoric Islands** (p189): 'While phrases can contain anaphoric and deictic uses of syntactically independent pronouns, derived words and compounds cannot.'

#### 4.4. Referential properties of ISCs

The first Wari'-specific referential constraint on ISC predicates is given in (117):

(117) **Asymmetrical binding constraint**: an NP in the ISC (i.e. embedded) predicate *cannot* 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 embedded NP cannot be referenced on the matrix VIC, an NP in the matrix clause of (a future tense) ISC may be referenced by either or both the matrix and embedded VICs. This binding constraint is asymmetrical in the sense of Chomsky (1981), a higher NP cannot be coreferential with a lower NP (this formulation skips some technical details, but none that are crucial for the present exposition). It is important, again, to recognize that this constraint is based on the referentiality of the NP in the embedded clause. This is so because ungrammaticality results from co-reference, which means that the reference of all nominals involved must be determinable. In other words, the pronoun in the ISC's embedded predicate is referential. Examples given earlier are repeated here.<sup>22</sup>

(118) **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).")

(119) **\*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).")

(120) **Cao' xi' carawa nana hwijima'.**  
ear 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.)

(121) **\*Cao' xi' carawa nana -in hwijima'.**  
ear 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.)

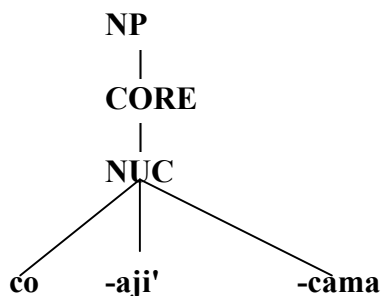


Table Six

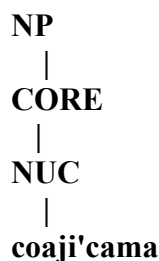
Input	Stress Constraint One >>	Stress Constraint Two
<i>ca"ram "ma'</i>	<b>**!</b>	
<i>caram "ma'</i>		<b>*</b>
<i>caram ma'</i>		<b>**!</b>

For the rest of the construction, however, it is helpful to remember first that asymmetrical junctures are marked in RRG. This implies that, *ceteris paribus*, the grammar will exert pressure over time to reduce the markedness. If we assume that *co*-kinship terms began with a similar asymmetrical juncture, then their markedness was eliminated by re-analyzing them as *words* (recall (10) above). By hypothesis, the structure of *co*-kinship terms would have changed from (125) to (126) (taken from (68) above):

(125)



(126)



The pronouns would, again, be represented by the marked structure in Figure 3. The pressure on them to become less marked is the likely explanation for them taking on more word-like properties, restricting them semantically and paradigmatically (so that the pronominal paradigms result because the structures are present, but 'frozen', no longer productive for the clitic + demonstrative pairing, this having reached the threshold of a Humeian reanalysis, i.e. nearly grammaticalized).

#### 4.6. Semantic interpretation

How would RRG account for the construction-based semantics of Wari' pronouns and ISCs? RRG derives semantic interpretation from 'Linking Rules' that connect lexical, syntactic, pragmatic, and other components of what it calls the 'Layered Structure of the Clause' (partially illustrated in some examples above). The Wari' LCs, like other LCs

crosslinguistically, can be interpreted in RRG by adding a linking rule along the lines of (127):

(127) Wari' Linking Rules (subset for ISCs and pronouns)

- a. ISC interpretation: if an embedded clause is in clause-initial position, interpret the sentence as a quotative (abstracting away from subtle distinctions between ISC types, which would require a few more Linking Rules);
- b. Pronoun interpretation:
  - (i) Interpret a clitic + demonstrative sequence as a pronoun;
  - (ii) Interpret **cara** as 'neuter gender' in a pronoun and **pacara** as 'nonneuter gender'.

#### 4.7. Counteranalyses

Before concluding this paper, I want to consider some counter analyses that derive from published work by others or that are simply worth considering and are likely to be thought of by the reader.

##### 4.7.1. Carnie

On the surface, Carnie's theory (discussed above) seems to provide a plausible MP & Distributed Morphology account of the Wari' LC facts, it perhaps being merely necessary to adapt his analysis of Irish for Wari'. In fact, I do not believe that his account can be extended to Wari', although the RRG account of Wari' developed here (as well as may other theories of complex predicates) can straightforwardly account for the Irish facts Carnie addresses. Moreover, the RRG analysis of Irish has the desirable effect of explaining, rather than obliterating, some important universally-accepted distinctions between words and phrases, by allowing morphology to target NUCs, rather than X'-theoretic categories.

For one thing, recall that Carnie's analysis is unable to predict the fact that complex predicates can be stressed as single words. In fact, he appeals to the architecture of Distributed Morphology to predict this. Yet this prediction is contradicted by the Wari' facts, where phrasal elements may nonetheless be stressed like words, by means of a constraint on NUC stress, (108). Moreover, as I noted earlier, 'postverbal' compound modifiers in Wari' may co-occur with ISC predicates, even though these predicates are phrases according to their internal structure and are subject to external binding constraints. Moreover, these predicates are stressed as single words, unlike the 'raised' attributes in Irish. These facts are not accessible to either Carnie's analysis or DM (at least under his interpretation of it).

We seem led to conclude with respect to Carnie's proposal that although his theory is interesting, it ultimately lacks the conceptual apparatus necessary to handle the task it sets for itself. Carnie has only X-bar theory and the notion of ambiguous categorization relative to  $X^0$  at his disposal. And this results in a serious shortcoming: the phonology and morphology lack targets appropriate to the structures at hand. His account, therefore, can neither account for stress placement nor compounding in Wari' ISC predicates, facts which follow automatically in our NUC-based account.

On the other hand, the RRG account developed here for Wari' extends straightforwardly to Irish. Rather than label attributes of clauses like (6)-(8) above as

INFL<sup>0</sup>, we simply recognize that they may be asymmetrically linked under NUC just as in Wari'. To account for the fact that these Irish predicates, unlike Wari' ISC predicates, are stressed on their individual word constituents, we merely reverse the ranking of constraints in (108). Therefore, all the facts analyzed by Carnie follow immediately from the asymmetrical-linkage-to-NUC analysis, with no consequence that the phrase-word distinction is obliterated or even momentarily blurred.

#### 4.7.2. Covert verb of saying

One possible retort to the analysis of Wari' ISCs is to claim that they *do* have a verb 'to say', but that it cannot be heard, i.e. it is not spelled out in the phonology. Then what I have been calling the ISC predicates 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 verbs may go unpronounced. This simple alternative fails immediately, however. There are at least three important reasons to reject it. First, complement clauses do not otherwise occur in phrase-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. Both of these facts are illustrated in (84), repeated here, as (128):

- (128) **Tomi' ta      -in<sub>i</sub>      [ca                      mi'                      ne]<sub>i</sub>.**  
          speak 1s:rf    **-3n**    INFL:nrp/p    give (die)    poss:1s  
          *'I will tell you about my death.'* (lit. *'...about my giving'*)

In this example the embedded clause **ca mi' ne** 'about my death' occurs in object position. And the VIC suffix **-in '3n** agrees with it. This is the normal behavior of embedded complement clauses in Wari'. This behavior, as we have seen repeatedly, is not found with ISC predicates.

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 predicates, as summarized in (36) above. Therefore, we must reject the 'covert verb' analysis.

#### 4.7.3. Comparison with other approaches cited in the paper

The analysis of this section is not intended to be significantly incompatible with the proposals in section 2. I believe that the RRG concepts of NUC and juncture provide a more elegant and useful analysis, but I do not wish to emphasize the differences in approaches between section 2 and section 4. Rather, I would like to draw the reader's attention to what is similar between these approaches, namely, the notions of Reanalysis, Extension (forms of Grammaticalization) and, most importantly, a construction-based perspective on grammar.

Still, it should be remarked that the RRG analysis easily handles all the wari' facts as well as all of the cases discussed in section 2, whereas it is not at all clear that previous approaches can handle the Wari' ISC predicates. This seems crucial since ISC predicates are similar to Wari' complex kinship terms in both appearing to derive from quotatives. This means that a theory of LCs will have to be able to capture the embedding of clauses in words in some way, a requirement met in RRG by the NUC node.

## 5. Conclusion

Again, as in so many areas of thought about relations in the world, Hume seems to have anticipated this discussion by developing the still-relevant notion of how people come to impute 'oneness' and/or 'causation' to different pairings. Meaning comes in where none was before, based on reanalysis of the world around us. In that sense, construction-based approaches to grammatical analysis are a footnote to Hume.

Another important lesson of this paper is that, if RRG is right in any event, things that seem to be morphology are not. This does not follow from X'-theoretic approaches to syntax and morphology (e.g. Distributed Morphology), but it does follow from RRG's proposal that certain phrasal categories, e.g. clauses and NPs, are headed by a NUC node.

To summarize some additional points of theoretical interest of Wari' LCs, we can include the following: (i) they illustrate an entire paradigm of 'periphrastic morphology', offering very strong support for the proposals of Börjars, Vincent, and Chapman (1997); (ii) they show that paradigms may apparently be created to satisfy communicative needs, so long as they can be filled by LCs (and, concomitantly, that not all examples of periphrastic morphology can be related to 'blocking' (Andrews (1990), Stump (??)); (iii) not all LCs are interpretable by compositional semantics but acquire their own meanings *qua* constructions, further supporting work by Construction Grammar and, I argue, RRG.

I intend and hope that the concept of Liminal Category will turn out to be a useful hypernym for the various cases of constructions, complex predicates, and periphrastic morphology that many researchers (e.g. those cited above) are bringing persuasively to the attention of linguists across theoretical boundaries.

It is interesting, though, I think to restate that LCs are actually predicted architectonically in RRG. That is, given a theory with a concept like NUC, LCs are to be expected.

But Liminal Category is still partially a metaphor – not all LCs, unlike, say, boys in puberty, are expected to emerge from liminality. For example, with respect to Wari' ISCs – we do not really expect all sentences to become verbs, so we do not expect this construction to cease to be liminal. But some LCs are likely to participate in a 'rite of passage', e.g. Wari' periphrastic pronouns, being re-classified by the grammar as pronouns, along the lines of what seems to have happened with Wari' kinship terms.

## REFERENCES

- Ackerman, Farrell. 1998. "Constuctions and Mixed Categories: Determining the Semantic Integration of Person/Number Marking".
- 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 Publications, Stanford.
- Alsina, Alex, Joan Bresnan, and Peter Sells. 1997. "Complex Predicates: Structure and Theory", In: Alex Alsina, Joan Bresnan, and Peter Sells (eds.). 1997. **Complex Predicates**, CSLI Publications, Stanford.
- Anderson, Stephen R. 1992. **A-morphous Morphology**, Cambridge University Press, Cambridge.
- Andrews, Avery D. 1990. 'Unification and morphological blocking', **NLLT** 8, 507-557.
- Blevins, James P. 2002. 'Periphrasis as syntactic exponence', UCSD Workshop on Periphrasis and Paradigms, April 12-13, 2002.
- Bloomfield, Leonard. 1933. **Language**, Holt, Rinehart, and Winston, New York.
- Booij, Geert. 2002. 'Constructional idioms and periphrasis: the progressive construction in Dutch', UCSD Workshop on Periphrasis and Paradigms, April 12-13, 2002.
- Börjars, Kersti and Nigel Vincent. 2000. "Multiple Case and the 'Wimpiness' of Morphology", In: Miriam Butt and Tracy Holloway King (eds.), **Argument Realization**, pp15-40.
- Börjars, Kersti, Nigel Vincent, and Carol Chapman. 1997. "Paradigm periphrases and pronominal inflection: a feature-based account", in: G. Booij and J. van Marle (eds.), **Yearbook of Morphology 1996**, pp. 155-180, Dordrecht, Kluwer.
- Bresnan, Joan. 2001. **Lexical-Functional Syntax**, Blackwell.
- Bresnan, Joan & Sam Mchombo. 1995. 'The Lexical Integrity Principle: Evidence From Bantu,' **NLLT** 13:181-254.
- Broadwell, George Aaron. 2000. Choctaw Directionals and the Syntax of Complex Predication", In: Miriam Butt and Tracy Holloway King (eds.), **Argument Realization**, 111-133.
- Butt, Miriam. 1995. **The Structure of Complex Predicates in Urdu**, CSLI Publications, Stanford.
- Bybee, Joan and Paul Hopper (eds.). 2001. **Frequency and the Emergence of Linguistic Structure**, John Benjamins Publishing Company, Amsterdam.
- 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.
- Cattell, Ray. 1984. **Composite Predicates in English**, Academic Press, New York.
- Chomsky, Noam. 1981. **Lectures on Government and Binding**, Foris, Dordrecht.
- Chomsky, Noam. 1995. **A Minimalist Program for Linguistic Theory**, MIT Press, Cambridge.
- Chomsky, Noam. 2001. 'Derivation by phase', In: Michael Kenstowicz, ed., **Ken Hale: A life in language**, MIT Press, Cambridge, pp. 1-52.



- Conklin, Beth A. 2001. **Consuming Grief: Compassionate Cannibalism in an Amazonian Society**, University of Texas Press, Austin.
- Croft, William. 2001. **Radical Construction Grammar**, Oxford University Press, London.
- Crysmann, Berthold. 2000. "Syntactic Transparency of Pronominal Affixes", In: Ronnie Cann, Claire Grover, and Philip Miller (eds.), **Grammatical Interfaces in HPSG**, CSLI Publications, 77-96.
- Everett, Daniel L. 1994. 'The Sentential Divide in Language and Cognition: Pragmatics of Word Order Flexibility and Related Issues', **The Journal of Pragmatics & Cognition**, 2:1, pp 131-166.
- 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. 1998: 'Wari' Morphology', In: Arnold Zwicky and Andrew Spencer (eds.) **Handbook of Morphology**, Basil Blackwell, London.
- 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. and Barbara Kern. 1998. **Wari': The Pacaas-Novos language of Western Brazil**, Routledge Press.
- Falk, Yehuda. 2001. **Lexical-Functional Grammar: An Introduction to Parallel Constraint-Based Syntax**, CSLI Publications, Stanford.
- Fillmore, Charles J. and Paul Kay. 1993. **Construction grammar**. Unpublished manuscript, University of California, Berkeley.
- Goldberg, Adele. 1995. **Constructions: A Construction Grammar Approach to Argument Structure**, University of Chicago Press.
- Goldberg, Adele. to appear. "Words by Default: The Persian Complex Predicate Construction", In: Elaine Francis and Laura Michaelis (eds.), **Mismatch: Form-Function Incongruity and the Architecture of Grammar**, CSLI Publications, 83-112.
- Halle, Morris and Alec Marantz. 1993. 'Distributed Morphology and the Pieces of Inflection,' In: S. Jay Keyser and Kenneth Hale, eds., **The View from Building 20**, pp. 111-176.
- Harris, Alice C. 2002. 'Unexpected periphrasis in Udi', UCSD Workshop on Periphrasis and Paradigms, April 12-13, 2002.
- Harris, Alice and Lyle Campbell. 1995. **Historical syntax in cross-linguistic perspective**, Cambridge University Press.
- Hopper, Paul J. and Elizabeth Traugott. 1993. **Grammaticalization**, Cambridge University Press.
- Hume, David. 1975 [1772]. **An enquiry concerning human understanding**, Oxford University Press
- Kathol, Andreas. 2000. **Linear Syntax**, Oxford University Press.
- Kayne, Richard. 1994. **Antisymmetry**. MIT Press.
- Kel'makov, Valentin and Sara Hännikäinen. 1999. **Udmurtin Kielioppia ja Harjoituksia**. Helsinki: Suomalais-Urgilainen Seura.

- Klein, Ewan. 2000. "Prosodic Constituency in HPSG", In: Ronnie Cann, Claire Grover, and Philip Miller (eds.), **Grammatical Interfaces in HPSG**, CSLI Publications, 77-96.
- Ladefoged, Peter and Daniel L. Everett. 1996. 'The Status of Phonetic Rarities', **Language** 72:3, September 1996.
- Lambrecht, Knud. 1994. **Information Structure and Sentence Form**, Cambridge University Press, Cambridge.
- Lieber, Rochelle. 1992, **Deconstructing Morphology: Word Formation in Syntactic Theory**, The University of Chicago Press, Chicago.
- Mohanan, Tara. 1994. **Argument Structure in Hindi**, CSLI Publications, Stanford.
- Palmer, Frank. R. 1986. **Mood and Modality**, Cambridge University Press, Cambridge.
- Postal, Paul M. 1969. 'Anaphoric Islands,' **Papers from the 5<sup>th</sup> Annual Meeting of the Chicago Linguistics Society**, pp. 203-239.
- Sadock, Jerrold. 1991. **Autolexical syntax: a theory of Parallel Grammatical Representations**, University of Chicago Press, Chicago.
- Sadler, Louisa and Andrew Spencer. ? 'Syntax as an exponent of morphological features'.
- Sag, Ivan A. & Thomas Wasow. 1999. **Syntactic Theory: A Formal Introduction**, CSLI, Stanford.
- Seymour-Smith, Charlotte. 1986. **Palgrave Dictionary of Anthropology**, Palgrave, Houndmills.
- Spencer, Andrew. 2002. 'Sentence negation and realization-based morphosyntax', UCSD Workshop on Periphrasis and Paradigms, April 12-13, 2002.
- Spencer, Andrew. 2003 "Periphrastic Paradigms in Bulgarian", ms. University of Essex.
- Stump, Gregory. 2002. 'Morphological blocking and Panini's principle', UCSD Workshop on Periphrasis and Paradigms, April 12-13, 2002.
- Van Geenhoven, Veerle. 1998. **Semantic Incorporation and Indefinite Descriptions: Semantic and Syntactic Aspects of Noun Incorporation in West Greenlandic**, CSLI Publications, Stanford
- Van Valin, Robert D. and Randy J. LaPolla. 1997. **Syntax: Structure, Meaning, and Function**, Cambridge Textbooks in Linguistics, Cambridge University Press.
- Webelhuth, Gert and Farrell Ackerman. ??? "A Lexical-Functional Analysis of Predicate Topicalization".
- Zwicky, Arnold. 1977. **On Clitics**, Indiana University Linguistics Club, Bloomington.

## Notes

---

<sup>1</sup> I would like to thank Barbara Kern for discussing the data and analysis of this paper with me and for supplementing the data I had available (from earlier work with her), crucially in many places. She also patiently corrected and coached me when she found that earlier drafts were somewhat discontinuous with the facts. Nigel Vincent, Gregory Stump, Louisa Sadler, Andrew Spencer, Grev Corbett, Dick Hudson, and others at audiences at the Manchester workshop on Paradigm Irregularity and the Spring Meeting of the Linguistics Association of Great Britain, all asked useful questions. Paul Hopper provided useful comments on a handout of this paper, before the paper had come to exist. Robert Van Valin has, as usual, been an encouragement and asked many useful questions. Delia Bentley has continued in her role as stimulating colleague, never failing to notice important details I have overlooked. None of these people is to be blamed for errors or unclear writing of mine which have survived their best efforts. I offer special thanks to Art Garfunkel for his Manchester 2003 show and his new LP which inspired. Also thanks to Lee Ritenour, Diana Krall, Elba Ramalho, Ivete Sangalo, Van Halen, Johnny Cash, AC/DC, Ludwig von Beethoven, and many others for providing the musical background so vital to my life.

<sup>2</sup> Seymour-Smith (1986, 168) defines a 'liminal stage' as one in which "... the initiate or the person undergoing the ritual process is regarded as in a special state apart from society and normal life..." This special state is accorded in part because the individual involved is understood as belonging to no 'normal' state (such as childhood or adulthood), but in a twilight between them.

<sup>3</sup> Wari', also known as Pacaas Novos, after the river along which many of its people live, is the only viable language remaining of the Chapakuran family. It is spoken by slightly more than 2,000 people along the Brazil-Bolivia border, near the city of Guajará-Mirim, roughly 200 kilometers Southwest of Porto Velho. The dialect of Wari' providing the data for this paper is Oro Nao, the same dialect described in Everett & Kern (1997; henceforth, EK). The best available study of Wari' culture in English is Conklin (2001). Everett (1998) summarizes major aspects of Wari' morphology.

<sup>4</sup> As Carnie (p67, footnote 19, observes, "The presence of the agreement morpheme is dialect dependent, being found mainly in the central Conamara dialect."

<sup>5</sup> Much of the work on periphrasis in morphology traces back to the seminal study by Börjars, Vincent, and Chapman (1997).

<sup>6</sup> Udmurt is a Uralic language, described by Kel'makov and Hännikäinen (1999), from which Ackerman and Stump take the data for their study.

<sup>7</sup> In the case of the LCs of Wari', each of these applies partially, as we see directly.

<sup>8</sup> Wari' has a set of 'emphatic pronouns' which are used exclusively only for emphasis (including focus) and conjunction. They do not occur in normal clausal argument positions. The inventory and some examples are given in (i)-(vi).

### Wari' Emphatic Pronouns

- (i)
- |    |                  |  |
|----|------------------|--|
| a. | <b>wata'</b>     | 'first singular'   |
| b. | <b>wum</b>       | 'second singular'  |
| c. | <b>wirico</b>    | 'third singular masculine'   |
| d. | <b>wiricam</b>   | 'third singular feminine'  |
| e. | <b>je</b>        | 'third neuter'   |
| f. | <b>wari'</b>     | 'first plural inclusive' (NB: this is the autodenomination of the people.) |
| g. | <b>warut</b>     | 'first plural exclusive'   |
| h. | <b>wahu'</b>     | 'second plural'  |
| i. | <b>wiricoco</b>  | 'wahu'   |
| j. | <b>wiricacam</b> | 'third plural feminine'  |

- (ii)
- |  |                |              |           |              |
|--|----------------|--------------|-----------|--------------|
| <b>Wirico</b>                            | <b>Mon' co</b> | <b>pa'</b>   | <b>na</b> | <b>mijac</b> |
| emph:3sm                                 | m:name         | INFL:m/frp/p | kill      | 3s:rp/p pig  |
| <b>ma'.</b>                              |                |              |           |              |
| that:proximate:hearer                    |                |              |           |              |
| <i>'It was Mon' who killed the pig.'</i> |                |              |           |              |

- (iii)
- |  |             |                 |                |             |
|--|-------------|-----------------|----------------|-------------|
| <b>Pa'</b>                                     | <b>na</b>   | <b>mijac je</b> | <b>waram</b>   | <b>Mon'</b> |
| kill   | 3:srp/p pig | emph:3n         | monkey:species | m:nam       |
| <b>ma'</b>                                     |             |                 |                |             |
| that:prox:hearer                               |             |                 |                |             |
| <i>'Mon' killed a pig and a waram monkey.'</i> |             |                 |                |             |

- (iv)
- |                                      |           |           |                |             |
|--------------------------------------|-----------|-----------|----------------|-------------|
| <b>*Pa'</b>                          | <b>na</b> | <b>je</b> | <b>waram</b>   | <b>Mon'</b> |
| kill                                 | 3:srp/p   | emph:3n   | monkey:species | m:name      |
| <b>ma'.</b>                          |           |           |                |             |
| that:prox:hearer                     |           |           |                |             |
| <i>'Mon' killed a waram monkey.'</i> |           |           |                |             |

- (v)
- |  |             |                  |                 |                |
|--|-------------|------------------|-----------------|----------------|
| <b>*Pa'</b>                                    | <b>na</b>   | <b>je</b>        | <b>mijac je</b> | <b>waram</b>   |
| kill   | 3:srp/p     | emph:3:n         | pig             | emph:3n        |
| <b>Mon'</b>                                    | <b>ma'.</b> |                  |                 | monkey:species |
| m:name   |             | that:prox:hearer |                 |                |
| <i>'Mon' killed a pig and a waram monkey.'</i> |             |                  |                 |                |

- (vi)
- |                          |             |                     |
|--------------------------|-------------|---------------------|
| <b>*Pa'</b>              | <b>'ina</b> | <b>mijac wata'.</b> |
| kill                     | 1s:rp/p pig | emph:1s             |
| <i>'I killed a pig.'</i> |             |                     |

<sup>9</sup> There are no first and second personal pronouns in Wari'. The reason for this seems clear, at least diachronically. The demonstratives are simply incompatible in meaning with first and second persons. It is conceivable that these 'gaps' in the paradigm would be filled, however, when/if the personal pronouns reach the degree of grammaticalization found in the kinship terms.

<sup>10</sup> These proclitics may very well have been the personal pronouns historically, but I have no reason to believe that they were.

<sup>11</sup> Paul Hopper (p.c.) reminds me that Brazilian Portuguese also has at least one periphrastic pronoun, *a gente* 'we/I' (literally: 'the people').

<sup>12</sup> Both of these particles may also function as predicates, what Everett & Kern (1998, section 2) refer to as verbalization, but this not relevant to the present discussion, since it involves a process affecting all categories and even phrases.

<sup>13</sup> This is likely due to the fact that the shorter forms are simply contractions of the larger ones, outside of the paradigms.

<sup>14</sup> Goldberg (1995, 31ff) proposes to account for the non-monotonic (non-compositional) relationship between the form and meaning of mixed categories by (i) recognizing constructions as theoretical primitives and (ii) allowing part of the meaning of a construction to be 'read off of' or carried by the construction itself, where "constructions are typically associated with a family of closely related senses rather than a single, fixed abstract sense." Goldberg (1995, 101ff) discusses this further in her section on linking of constructional form and meaning.

<sup>15</sup> There really is much more detail than we have space for here so the reader is urged to read Everett and Kern 1997, 58ff) if she desires more information.

<sup>16</sup> Less relevant to our discussion, perhaps, is the still interesting observation that the postverbal agreement marker may also mark general affectedness of a participant not lexically specified by the verb, as in the Romance ethical datives:

- (i) **Noc nana -pa' con panxi -ta'.**  
 dislike 3p:rp/p-1s prep:3sm son -1s  
*'They dislike my son (lit: they dislike to me my son).'*
- (ii) **To 'cat ne xe.**  
 hit break 2s:1s:rf fire/firewood  
*'Cut me some firewood.'*

<sup>17</sup> 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.

---

<sup>18</sup> 'Younger brother' would not be stressed in an isolated sentence, but it is here because it is the last syllable of a predicated NUC or 'verb'. The same holds for other words in ISC predicate-final position.

<sup>19</sup> The labels above the words in Figures 3 and 4 refer to the LSC constituents, whereas the labels below the words in Figure 3 label units in the Operator Projection. So the sentence in Figure 4 is formed by interlocking subtrees, drawn from a small number of syntactic templates for the language in question.

<sup>20</sup> The CORE constituent in RRG is very important for the general point I am trying to make in this paper regarding the ontology of syntax, namely, that there are constituents whose presence is licensed directly by the semantics. But a discussion of CORE in this regard will, alas, have to wait for a subsequent paper dedicated to it alone.

<sup>21</sup> Recall once again that VICs are *not* second-position clitics. They exclusively follow verbs and ISC predicates, i.e. clausal NUC-position.

<sup>22</sup> Compare these to 'Reagan never liked anti-Reaganites.' There is no binding violation here, what Chomsky (1981) and many others call a Binding Condition C violation, i.e. binding of a proper name, because the lower 'Reagan' is part of a word and not a separate word on its own.