# PERIPHRASTIC PRONOUNS IN WARI'1

To appear in the International Journal of American Linguistics
July 2005
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### 1. Introduction

The primary purpose of this paper is to analyze and document periphrastic pronominal paradigms in Wari', an Amazonian language of the Chapakura family. Everett and Kern (1997) and Everett (1998) provide a general overview of Wari' pronouns, so I will not repeat the basic facts here. Rather, I am concerned in this paper with establishing that two related sets of pronouns manifest semantic, phonological, and syntactic properties that are partially phrase-like and partially word-like. I propose an analysis of these facts that draws heavily on work by Ackerman (to appear), Beard (1995), Stump (2001; 2002), Anderson (1992), Everett (1996), Ackerman and Stump (to appear), Ackerman and Webelhuth (1998), Spencer (2001; 2003), Börjars, Vincent, and Chapman (1997), and many others, in that it (i) is *inferential-realizational*, (ii) recognizes periphrasis as a normal expression of morphology, and (iii) attributes a crucial theoretical role to paradigms. In particular, the Wari' pronouns examined here provide an exceptionally clear and unusual case of entirely periphrastic pronominal paradigms, i.e. paradigms in which all cells are filled by periphrastic constructions. This analysis thus offers support for the understanding of periphrastic morphology urged by Ackerman & Stump (to appear, 4):

"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 morphologically. *That is, syntactic principles of constituency and linearity determine the distribution of a periphrase's individual parts, but not the finished information which the periphrase expresses.*" [emphasis mine, DLE]

This paper is organized as follows. First, I describe Wari's pronoun system, focusing on its spatial and temporal demonstratives. I provide arguments for analyzing these as periphrastic pronouns rather than merely as phrases. The next section considers, briefly, the theoretical implications of these facts, concluding that they are best handled by an inferential-realizational morphology in which paradigms play a crucial theoretical role. This is followed by a section which discusses the diachronic development of a portion of Wari' kinship terms from periphrastic expressions much like the periphrastic pronouns. The conclusion summarizes the major findings.

## 2. Description of Wari' Periphrastic Pronouns

Wari' personal pronouns are described in Everett and Kern (1997, 306ff). <sup>2</sup> As observed there, these pronouns occur only in the third person, in both singular and plural numbers. They are formed by combining the proclitics *co* 'singular masculine', <sup>3</sup> *cam* 'singular feminine', *caram* 'plural', and 'i 'neuter' (though there are no number distinctions in neuter gender) with the demonstratives in the examples below. <sup>4</sup> These proclitics cannot themselves be considered personal pronouns of Wari' since, among other reasons, they are barred from occurring without the demonstratives (see below for more details). <sup>5</sup> The resultant combinations of clitics and demonstratives form two separate paradigms whose cells are filled by exocentric, periphrastic constructions, Tables 1 and 2. Wari' spatial demonstratives are listed in (1) and illustrated with NPs in (2) (Everett and Kern 153ff; 306ff):

(1)	a.	cwa'	'this:m/f
	b.	ca'	'this:n'

c. *ma'* 'that:prox:hearer d. *cwain* 'that:m/f:distal' e. *cain* 'that:n:distal'

(2) a. tarama' cwa' man this:m/f 'this man'

b. xirim ca' house this:n 'this house'

c. carawa ma' animal that:prox:hearer 'that animal'

d. narima' cwain
woman that:m/f:distal
'that woman'

e. pana cain tree that:n:distal 'that tree'

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 (4)-(6), so long as multiple interpretations are allowed by context, real-world knowledge, etc. The temporal demonstratives are:

(3) a. paca' 'heard'
b. pacara ne 'recent'
c. pacara pane 'long ago'
d. cara ne 'recently absent'

e. cara 'absent/forever' f. cara pane 'long absent'

(4) 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.'

(5) 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?'

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

The resultant two paradigms, spatial and temporal are given in Tables 1 and 2, respectively:

TABLE ONE<sup>6</sup>
Paradigm of spatial demonstrative pronouns

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

TABLE TWO
Paradigm of temporal demonstrative pronouns

	Heard/not seen	Recently absent	Long absent
Masculine	co paca'	co pacara ne	co pacara pane
singular			
Feminine	cam paca'	cam pacara ne	cam pacara
singular			pane
Neuter	'i cara <sup>7</sup>	'i cara ne	'i cara pane
Plural	caram paca'	caram pacara ne	caram pacara
			pane

The constructions in these tables are not simply words. Phonologically, words in Wari' manifest two important characteristics that these periphrastic forms fail to show. First, Wari' words disallow internal consonant clusters where one of the consonants is a glottal stop. Thus, the initial glottal stop on 'ma' [?ma?] 'that proximate to hearer' in Table 1, as in co 'ma' 'that masculine one proximate to hearer' and 'i 'ma' 'that neuter one proximate to hearer', should not occur, since word-medial glottal-consonant clusters do not otherwise occur. By this otherwise inviolable criterion, 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 discussed in Everett and Kern (1997, 413ff)). Second, in Wari' words prefixes always undergo Vowel Harmony with their hosts. The kinship terms discussed in the penultimate section of this paper, which are analyzed as words, rather than periphrastic forms, do indeed show Vowel Harmony between the co and the root. The absence of Vowel Harmony in the forms in Tables 1 and 2 is therefore additional strong evidence that these are not words (or, at the very least, that they violate expectations on word phonology). Again, in the section on kinship terms below, I show that the same, etymologically, clitics do undergo Vowel Harmony with the rest of the word, when the periphrastic expressions have been reanalyzed as words. In what follows. I want to consider a (non-exhaustive) list of the properties of these pronouns that support the analysis of the cells of these tables as periphrastic pronouns.

- (7) The constructions in Tables 1 and 2 do not co-occur with other nouns.
- (8) 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 m:sg that:rec.
    'Where are my clothes that were just here a minute ago?'

- (9) 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 man m that:prox:hearer
    'The man came.'

Restriction (7) is interesting, 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 subject 'clitic-doubling' (see Everett 1996, inter alia), which is relatively rare crosslinguistically. At the same time, if *co* alone were a pronoun, this would also bar a coreferent noun from co-occurring with it in the same phrase. But though (7) 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. Rather, the attachment of the proclitic severely restricts the distribution of the demonstrative.

- (10) Demonstratives may only appear sentence-finally (11)-(14), unless they co-occur with a proclitic as in Tables 1 and 2 (15) and (16):<sup>9</sup>
- (11) 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.'
- (12) \*Mi' 'inon con hwam cwa' tarama' give 1s:rp/p-3sm prep:3sm fish this:m/f man

  (cwa').
  (this:m/f)
  'I gave this fish to this/the man.'
- (13) Mi' 'inam pain mapac narima' cwa'.
  give 1s:rp/p-3n prep:3n corn woman this:m/f
  'I gave the corn to this woman.'
- (14) \*Mi' 'inam pain mapac ca' narima give 1s:rp/p-3n prep:3n corn this:n woman

  (cwa)'.
  (this:m/f)
  'I gave this corn to this/the woman'.

(15) Wirico co cwa' tarama' co emph:3sm m this:m/f man INFL:m/frp/p

noc ta' cwa'.
dislike 1s this:m/f
'It is this man that I dislike.'

(16) 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 constrasts 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 distributionally from either of their component morphemes, i.e. that they are non-endocentric.

(17) 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 (5) and (6). However, when a temporal demonstrative is preceded by a proclitic, as in Table 2, 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.

(18) 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 and Kern 1997, 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 (20)-(23). 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 (19), where a demonstrative modifies a RECIPIENT. Unlike (25) below, a demonstrative can mark a RECIPIENT just in case it is not part of a pronoun:

## RECIPIENT:

(19) Mon ma' tarama'

ma' -on

that:prox:hearer-m that:prox:hearer man

co

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:

(20) Cain' cain' ne wixicon tarama'

wixi-con

that:n:distal that:n:distal 3n name-3sm man

cara ne?

that: recently:absent recently:absent 'What was that recently absent man's name?'

# THEME/PATIENT(as prepositional object):

(21) 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):

(22) 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:

(23) 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 (24) and (25), where the same demonstrative cannot be associated with the RECIPIENT:

(24) Mi' nam con hwam Hatem tarama'.

na-m
give 3srp/p-3sf prep:3sm fish f:name man
'The man gave Hatem the fish.'

But:

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

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

b. *Mi'* 'inon con hwam tarama' give 1s:rp/p-3sm prep:3sm fish man

cwa'.
this:m/f

'I gave the fish to this man.'

fish.')

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.'

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 (19)). 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 1 and 2 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).

(26) 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 crosslinguistically.

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 1 and 2 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 at least first and second person (see footnote 3).

(27) 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 1 and 2. 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 selected as wholes, by the morphological paradigm in which they occur, i.e. as the 'extended exponence' of the relevant cells.

(28) 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 2, **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:

- (29) tarama' cara ne man that:past recent:past 'that recently present man'
- (30) tarama' cara pane man that:past distant:past 'that long ago man'
- (31) tarama' pacara ne man in:the:past recent:past '(the) man (who existed) recently'
- (32) 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-compositionality 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.

(33) 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 under (27) above. Still, inseparability of parts is an oft-used diagnostic for word-hood and so (33) supports the analysis of these pronouns as words.

- (34) 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 (the syllable in bold face below is stressed; *pane* and *ne* are never stressable, even when appearing without a demonstrative):
- (35) a. caram paca' [karam paka?] b. caram pacara pane [karam pakara 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 acceleration supports my claim that these pronouns are not merely run-of-the-mill phrases in Wari', but are at least partially lexicalized, since it is atypical of full phrases and completely unlike the rhythm of full phrases when viewed with the stress placement (see also the end of section 4, below).

- (36) *ne* and *pane* always occur with *pacara* or *cara* in pronouns, but occur independently otherwise, as in (37)-(39). 10
- (37) Ta tomi' hwet hwein cara ca INFL:rf speak approach 2p-3n that:past INFL:rp/p

*querec* see

hwe cara ne.

2p that:past recent:past 'Don't tell that which you just saw.'

(38) Pain cara ca tomi' napat xun prep:3n that:past INFL:rp/p speak slander1pincl

taramaxicon pane.
chief distant:past

'That (incident) long ago when we spoke out against the chief.'

(39) 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.

(40) pacara ne and pacara pane are interchangeable with pain cara ne, pain cara pane except in the paradigms.<sup>11</sup>

Examples (41)-(46) show their interchangeability. Examples (47) and (48) show that this is not possible when they are used in pronouns.

(41) 'Ane ca wari' mao caca pain different INFL:rp/p person go(sg) 3p prep:3n

cara pane.
that:past distant:past
'But they were people long ago.'

(42) 'Ane ca wari' mao caca pacara different INFL:rp/p person go(sg) 3p in:the:past

## pane.

distant:past

'But they were people long ago.'

(43) Xi wara tomi' xun Xijam mahu' INFL:irr already speak 1 pincl:rf-3 sm 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.')

(44) Xi wara tomi' xun Xijam mahu' INFL:irr already speak 1 pincl:rf-3 sm m:name 2p-1s

# pacara pane.

in:the: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.'

- (45)Pain 'om cara pane xere, prep:3n that:past distant:past siblings:1s not:exist 'i ma''ac ca wa pane. INFL:rp/p like that:prox:hearer inf distant:past n 'Long ago, my brothers, it wasn't like that.'
- (46)Pacara pane xere, 'om ca INFL:rp/p in:the:past distant:past siblings:1s not:exist 'ac 'i ma' pane. wa like n. that:prox:hearer inf distant:past 'Long ago, my brothers, it wasn't like that.'

Now compare:

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

Only the shorter form is acceptable as a pronoun. This suggests that *pacara* but not *pain cara* is selected by the paradigm as the exponence of masculine/feminine gender and is not behaving within the paradigm as it does outside of the paradigm.

- (49) Demonstrative pronouns can occur as answers to questions, though neither part alone can be:
- (50) 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, the constraints discussed above warrant analyzing the cells of Tables 1 and 2 as periphrastic pronouns, rather than merely as phrases or idioms or words historically deriving from phrases. <sup>12</sup> Certainly, their cumulative effect seems to lead unambiguously to the conclusion that they simultaneously manifest properties or 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'.

The arguments for the 'mixed' status of Wari' pronouns are repeated below:

- (51) a. The constructions in Tables 1 and 2 do not co-occur with other nouns.
- b. Demonstratives may only appear sentence-finally (11)-(14), unless they co-occur with a proclitic as in Tables 1 and 2 (15) and (16):
- c. The semantic scope of the temporal demonstrative is fixed when preceded by the proclitic.
  - d. Personal pronouns may not reference RECIPIENT/GOAL nominals.
- e. 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.<sup>13</sup>
- f. The proclitics *co*, *cam*, *'i*, and *caram* and their demonstrative hosts select each other.

- g. The cells of the periphrastic paradigms show innovations in meaning.
- h. Nothing may intervene between the proclitic and the demonstrative.
- i. Stress goes on the final syllable of the entire construction
- j. ne and pane always occurs with *pacara* or *cara* in pronouns, but occur independently otherwise.
- k. *pacara ne* and *pacara pane* are interchangeable with *pain cara ne*, *pain cara pane* except in the paradigms.
- 1. Demonstrative pronouns can occur as answers to questions, though neither part alone can be.

### 3. Discussion

Ackerman and Stump (to appear, 8) suggest the following hypothesis on periphrastic realization:

(52) "The Periphrastic Realization Hypothesis: Inflectional rules that deduce the realizations of a form-paradigm's cells include rules defining periphrastic combinations as well as rules defining synthetic forms."

They further suggest (to appear, 15ff) three sufficient (but not necessary) criteria for recognizing phrases as the periphrastic expression of morphological paradigm cells:

(53) CRITERION I: If an analytic combination C has a featurally intersective distribution, then C is a periphrase.

This criterion in effect says that if a phrase expresses a set of morphological features complementary to those expressed by synthetic words, then this phrase is a periphrastic expression of those morphological features. Since there are no synthetic forms in the paradigms of Tables 1 and 2, however, (52) is inapplicable in the Wari' case, one reason why the Wari' case is unusual.

(54) CRITERION II: If the morphosyntactic property set associated with an analytic combination C is not the composition of the property sets associated with its parts, then C is a periphrase.

This is a crucial feature and is directly relevant to the Wari' pronominals in Tables 1 and 2. Recall (28) above, repeated here:

(28) The cells of the periphrastic paradigms show innovations in meaning.

As noted under (28), the temporal demonstratives are normally 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 2, *cara* and *pacara* do not contrast temporally but are instead distinguished for gender, with *cara* marking neuter and *pacara* marking non-neuter gender. This meaning innovation is non-compositional, given the basic meanings of the words, and thus falls under (54). Since this is a sufficient criterion, this requires, by Ackerman and Stump's theory, that the forms are periphrastic

pronouns. This is particularly strong evidence for PARADIGMATIC organization of spatial and temporal demonstrative pronouns in Wari'. As Ackerman and Stump (to appear, 27) observe,

"The usual view of such composition is that the content of a complex expression follows from the content of its immediate constituents by a principle of property unification; this is consistent with the purely syntactic approach to periphrasis adopted in lexicalist frameworks and elsewhere. In contrast, the Periphrastic Realization Hypothesis implies that a periphrase's membership in a paradigm may have independent consequences for this computation."

(55) Criterion III: If the morphosyntactic property set associated with an analytic combination C has its exponents distributed among C's parts, then C is a periphrase.

This criterion also supports the analysis of the material in Tables 1 and 2 as periphrastic paradigms. This is so, as the discussion under the tables shows, as well as the translations of the cells of the tables, that each word of the phrases in the cells expresses an exponent of the paradigmatic oppositions in the pronouns. This is in fact an interesting prediction, one that is not made by theories which attribute no status to the paradigm. As Ackerman and Stump (to appear, 32) put it:

"In a purely syntactic approach to periphrasis, there is no particular reason to expect that periphrases should exhibit a comparable tendency toward distributed exponence; word combinations in syntax are, after all, sometimes highly redundant in their expression of shared morphosyntactic properties (as in the Swahili sentence ki-kapu ki-kubwa ki-moja ki lianguka 'one large basket fell', every one of whose words carries an exponent of the subject's gender and number). But if the economy of inflectional exponence exhibited by heavily agglutinating languages is seen as a property of rules which define form-paradigms, then the assumption that periphrases are morphological in their definition entails that periphrases should be no less likely to exhibit this same economy."

The final issue raised in the introduction concerns the support that these pronouns offer for an inferential-realizational view of morphology. The paragraph just cited from Ackerman and Stump indicates that since the meanings of the cells are non-compositional and in conformity with the distributed exponence of the paradigms, that they should not be handled as outputs of phrase-structure rules. Rather, they are the outputs of morphological rules *realizing* the formcells of the relevant paradigms, as per Ackerman and Stump (to appear, 7ff). Though there is not space here to develop this in detail, the facts follow straightforwardly from the work by Ackerman and Stump and therefore strongly support and inferential-realizational view of morphology.

It is perhaps worth mentioning here why we cannot simply analyze Wari' periphrastic pronouns as idioms. The reason is straightforward. Calling these idioms fails to account for the many regularities we saw above and for the largely compositional semantics of these pronouns. To label an expression an idiom is to remove it from syntactic discussion and place it in the lexicon as a 'lexical phrase'. But the Wari' periphrastic pronouns are not merely lexically stored phrases, again because of the mixture of the regular and irregular in them, as summarized in (51) above.

The question arises as to whether there is evidence in Wari' for other cases of periphrastic expression. In fact, there is such evidence and it is especially interesting for our present discussion because the other case to be discussed illustrates a further stage of diachronic reanalysis. Let me conclude this section first, however, with formalizations of the analyses of the morphology and stress of Wari' periphrastic pronouns.

Now that the existence of periphrastic pronouns in Wari' has been established and a morphological analysis in terms of the paradigm has been offered, we need to ask how these elements are to be formally generated and interpreted. Although I elsewhere (Everett (in progress)) argue for a Role and Reference Grammar (Van Valin and LaPolla (1997)) approach to the syntax of Wari' pronouns, here, for the sake of ease and consistency of exposition, I offer in (56) a realizational-inflectional analysis along the lines of Ackerman and Stump (to appear).<sup>14</sup>

- (56) (a) The category 'pronoun' is realized as a sequence consisting of: clitic + demonstrative  $(+X)^{15}$ 
  - (b) *Clitic* is realized as follows:
    - (i) Masc. sg. = co
    - (ii) Fem. sg. = cam
    - (iii) Neut. sg = 'i
    - (iv) Elsewhere (i.e. Plural) = caram
  - (c) Spatial demonstrative is realized as follows:
    - (i) Proximate to Speaker:

- (ii) Proximate to Hearer: = 'ma'
- (iii) Distal

Neuter = cain Elsewhere = cwain

(iv)  $X = \emptyset$ 

- (d) Temporal demonstrative is realized as follows:
  - (i) Heard:

(ii) Absent:

Neut = cara Elsewhere = pacara Recent absent: X = ne

Finally, it is important to mention at least briefly both the diagnostic value of stress in distinguishing grammatical phrases from words in Wari', as well as the theoretical significance of stress on periphrastic pronouns. The normal rule of stress in Wari' is given in (57):

(57) *Wari' stress rule* (Everett and Kern 1997, 416): 'Within the sentence, the final syllables of major lexical categories are stressed. Primary stress in the sentence normally falls on the final syllable of the verb, with final-syllable stress on other lexical categories interpreted as secondary stress.'

This rule was originally intended to apply to words in the X-bar sense, i.e.  $X^0$ -level categories. For it to properly stress Wari' periphrastic pronouns, however, we need to ensure that it applies to the output of the realization rules in (56) above as though these outputs were single words, i.e. stressing the final syllable of each periphrastic pronoun. As I argue in Everett (in progress), this stress rule turns out to offer support for the RRG notion of Predicate, requiring no special ordering or stipulations if we understand it as applying to Predicates. But to show this would take us too far from the central point of this paper. Therefore, I will simply stipulate here that (57) follows (56). Alternatively, we can assume that stress in Wari' is postlexical and that it applies to the output of the morphological component.

## 5. Diachrony and Kinship Terms

Ackerman and Stump (to appear, 34) observe that:

"A widely observed phenomenon in historical linguistics is the diachronic development of periphrasis into synthetic morphology. This phenomenon follows very naturally from the conception of periphrasis advocated here. Periphrasis is, in this approach, just one more type of morphological exponence. The development of synthetic morphology from periphrasis is therefore not different, in principle, from the development of fusional morphology from agglutination: both sorts of developments involve an increasing degree of fusion in the inflectional realization of a paradigm's cells. Our approach predicts that just as one can observe different degrees of progress in the development from agglutination to fusionality, one should likewise find different degrees of progress in the development of synthesis from periphrasis..."

Wari' provides an excellent example of the development of a set of synthetic terms from periphrastic expression. These terms do not derive from a morphological paradigm in the traditional sense, but they do form a natural set of oppositions that are presently words but were once phrases. These are what Everett and Kern (1997,434ff) call 'complex' kinship terms. These are apparently recent developments, compared to a set of 'simplex' kinship terms, which show no evidence for previous or current internal morphological complexity. Complex kinship terms in Wari' have an internal composition that suggests a periphrastic origin similar demonstrative pronouns. But the complex kinship terms are nonetheless no longer periphrastic. 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 and Kern (1998, 434ff). There are two formation classes of kinship terms in Wari' The first includes what Everett and Kern (1997) 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 Everett and Kern (1997, 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

(58)	a.	'aramanaxi'	('aramana)	'sister' (lit: female of the species; male ego)
	b.	cainaxi'	(caina)	'daughter (female ego)
	c.	cawinaxi'	(cawiji)	'son' (female ego)
	d.	humajixi'	(humaju)	'children' (female ego)
	e.	japinaxi'	(wijapi)	'wife's mother'
	f.	jinaxi'	(jina)	'granddaughter' (male ego, or female
			,	ego's daughter's daughter)
	g.	manaxi'	(mana)'wife'	('hole'; mana 'my wife/my
	_			hole')
	h.	namorinaxi'	(namori)	'wife's sibling'
	i.	tamanaxi'	(tamana)	'husband's mother'
	j.	taramajixi'	(taramaju)	'brother' (male of the species;
				female ego)
	k.	taxixi'	(taxi)	'husband'
	1.	wijinaxi'	(wiji)	'grandchild' (female ego's son's
				child)
	m.	winaxi'	(wina)	'grandson' (male ego, or femalego's
				daughter's son)
	n.	xerexi'	(xere)	'sibling'
	0.	xinaxi'	(wixi)	'sister's son' (male ego)
	p.	xi'	(na)	'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 (61). They are used as special citation kinship forms. These *co*-kinship terms, as they are referred to in Everett and Kern (1997, 375ff), are interesting because they arguably show a higher degree of grammaticalization than the pronouns in Tables 1 and 2. They seem to have developed from relative clauses and share characteristics of quotatives.

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 stop 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; (v) the *co* in kinship terms, unlike the *co* in periphrastic pronouns, undergo Vowel Harmony with the root, as in (71)-(73) below.

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. (They are thus, as we see directly, similar in some ways to quotatives, though only diachronically.)

- (59) 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'

- (60) a. coxari' 'our (incl) younger sister'
  - b. *co* -*xa'* -*'iri'* -younger:sibling:1s

Literally: '(the one of whom) we (incl) (say) 'my younger sibling'

- (61) 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'

- (62) a. cotere 'our (incl) father'
  - b. co -te -'iri' -father:1s

Literally: '(the one of whom) we (incl) (say) 'my father'

- (63) 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'

- (64) a. *copama* 'your maternal grandmother'
  - b. *co* -*pa'* -*ma* -2s

Literally: '(the one of whom) you (say) 'my maternal grandmother'

- (65) a. coxaca 'his younger sibling'
  - b. co -xa' -ca -younger:sibling:1s - 3s

Literally: (the one of whom) he (says) 'my younger sibling'

- (66) 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. 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' 'her older brother' as in (66), the word-initial glottal plosive on 'aji' [?ayi?] 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:

- (67) 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 and Kern (1997, 377ff) as an exclusively word-internal process. Yet it happens in these kinship terms:

- (68) cotere' (co-te-'iri)  $\rightarrow$  [kotere?] 'our father'
- (69) coturut (co-te-'urut)  $\rightarrow$  [kotyry<sup>t</sup>]
- (70)  $cote \text{ (co-te)} + hwe \rightarrow [kote h^we], *[koteh^we]$ 2p

The Vowel Harmony illustrated in (68) - (70) is important because it otherwise only applies within words. That it applies here (and that it fails to apply in periphrastic pronouns)

supports the analysis of these kinship terms, unlike periphrastic pronouns, as simple, nonperiphrastic words.

Example (70) further 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 (70) is as a clitic.

Let us recap, then, the major differences between kinship terms and personal pronouns in Wari'. Wari' pronouns are periphrastic. One might say (see Everett (in progress) that they are special constructions in the process of grammaticalization, midway between phrases and words. In Everett (in progress), I introduce the term LIMINAL CATEGORY to describe such constructions – which are both midway between words and phrases diachronically and share properties of each synchronically (also including clitics and a variety of other phenomena). Complex *co* kinship terms, on the other hand, are fully grammaticalized now as words, though they derived from phrases/periphrastic forms historically.

### 6. Conclusion

This paper has shown that Wari' demonstrative pronouns are all periphrastic, thus adding to the empirical support for the phenomenon of paradigmatic periphrasis. I argued that these pronouns support both the notion of PARADIGM, the subject of a fast-growing morphological literature, as well as Inflectional-Realizational morphology, as developed in Ackerman and Stump (to appear), among others.

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### **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, Grev Corbett, Dick Hudson, Balthasar Bickel, and others at audiences at the Manchester workshop on Paradigm Irregularity, the 2003 Spring Meeting of the Linguistics Association of Great Britain, and the Workshop on Word Domains at Leipzig University 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. I especially want to thank Sergio Meira and Andrew Spencer, as well as an anonymous IJAL Associate Editor, for detailed comments on the original submitted version of this manuscript which improved the exposition considerably. None of these people is to be blamed for errors or unclear writing of mine which have survived their best efforts.

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

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

### Wari' Emphatic Pronouns

(i)	a.	wata'	'first singular'
	b.	wum	'second singular'
	c.	wirico	'third singular masculine'
	d.	wiricam	'third singular feminine'
	e.	je	'third neuter'
	f.	wari'	'first plural inclusive' (NB: this is the autodenomination of the people.)
	g.	warut	'first plural exclusive'

<sup>&</sup>lt;sup>2</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).

h. wahu' 'second plural'

'wahu' i. wiricoco

j. wiricacam 'third plural feminine'

- (ii) mijac Wirico Mon' co pa' na emph:3sm INFL:m/frp/p kill 3s:rp/p pig m:name ma'. that:proximate:hearer 'It was Mon' who killed the pig.'
- (iii) Pa' mijac je Mon' na waram kill emph:3n monkey:species 3:srp/p pig m:nam ma' that:prox:hearer 'Mon' killed a pig and a waram monkey.'
- (iv) \*Pa' Mon' je waram kill 3:srp/p emph:3n monkey:species m:name ma'. that:prox:hearer 'Mon' killed a waram monkey.'
- \*Pa' (v) je mijac je waram monkey:species kill 3:srp/p emph:3:n pig emph:3n

Mon' ma'. that:prox:hearer m:name 'Mon' killed a pig and a waram monkey.'

\*Pa' (vi) 'ina mijac wata'. kill 1s:rp/p pig emph:1s 'I killed a pig.'

<sup>&</sup>lt;sup>3</sup> This co is not to be confused with co 'INFL' which has the same phonological form. These two morphemes belong to separate paradigms and alternate with different forms. The latter follows the mood or WH word in sentence-initial position, whereas the former is found in the pronominal environments mentioned here.

<sup>&</sup>lt;sup>4</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>&</sup>lt;sup>5</sup> These proclitics may very well have been personal pronouns historically, but I have no reason to believe that they were.

<sup>6</sup> It is important to note, as one reviewer points out, that not all logically possible combinations of the individual morphemes in the Tables are found. For example, \*co paca ne is not found in these paradigms. The restriction of the combinations possible to the actually grammatically functioning combinations in Tables 1 and 2 further supports the thesis of this paper that these are partially lexical (hence not all possibilities are lexicalized).

- <sup>8</sup> Keren Rice (pc) makes the excellent suggestion that the claim that word-internal glottal+consonant sequences are prohibited could be strengthened if data could be provided where such sequences, when created by the morphology, undergo some sort of simplification to rid the output of the offending sequence. However, it is not possible to show this in Wari' since, as per Everett (1998), there is (other than these periphrastic forms) no inflectional or derivational morphology apart from inalienable possession anywhere in the language, thus no way to generate these sequences underlyingly.
- <sup>9</sup> A referee notes that this restriction seems strange, since it means that only sentence-final nouns can be modified by a demonstrative. Though the restriction clearly calls for further study, it does indeed seem to be a valid one and thus is cited here in support of the periphrastic analysis.
- <sup>10</sup> Both of these particles may also function as predicates, what Everett and Kern (1997, 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>11</sup> This is likely due to the fact that the shorter forms are simply contractions of the larger ones, outside of the paradigms.
- <sup>12</sup> It seems that they are in fact developing into words, but the phonological properties discussed under Table Two and their 'nearly' compositional meaning are not consistent with analyzing them as words. One could, of course, take them to be a sui generis type of word class, but that would merely restate the problem.
- <sup>13</sup> One referee points out that though rare, deictics combining with pronouns is attested in historical stages of French. An Associate Editor remarks that in some Mayan languages decitics and pronouns occur commonly. Again, my point is not that such combinations are impossible, but unusual.

<sup>&</sup>lt;sup>7</sup> This form is not in Barbara Kern's texts, nor have we observed it in spontaneous speech. Nevertheless, we predict that this is an accidental gap and that the form is grammatical.

<sup>&</sup>lt;sup>14</sup> Thanks to Andrew Spencer (pc) for suggesting the analysis sketched below.

<sup>&</sup>lt;sup>15</sup> This analysis reveals an interesting technical problem for those interested in morphological theory, namely, that the form **cara** is the Neuter form for all three temporal pronouns. However, it isn't the default form for any of the three temporal classes. This means that it's not possible to state the distribution without repeating the exponence of Neuter gender. Cross-cutting exponence

of this sort cannot, in other words, be handled by any straightforward application of the Elsewhere Condition (see Stump 2001, ch 3 for extensive discussion).