WAIMIRI ATROARI VERBAL MORPHOLOGY

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ABSTRACT: This article discloses a descriptive analysis of the Waimiri Atroari verbal morphology. Of all lexical classes, the verb is the richest in morphological possibilities. It can take a large set of different grammatical markers indicating person, tense-aspect-mood, negation, causativization, and clitics, as for example, the interrogative clitic. The present work is organized as follows, the first section provides a description of verbal morphology and the second section analyzes the behavior of the interrogative clitic that is attached to the tense/aspect suffix slot. In addition, this paper provides two texts to demonstrate more examples of the verbal morphology of this language.

KEYWORDS: Waimiri Atroari Language, Verbal Morphology; Interrogative Clitic.

RESUMO: Este artigo constitui-se numa análise descriptiva da morfologia verbal da língua Waimiri Atroari. De todas as classes lexicais, é o verbo que recebe diferentes afixos que indicam pessoa, tempo/aspecto/modo, negação, causativização e clíticos como por exemplo, o clítico interrogativo. O presente artigo está organizado da seguinte forma, a primeira seção fornece uma descrição da morfologia verbal e a segunda apresenta e analisa o clítico interrogativo que ocorre no espaço dos afixos de tempo/aspecto. Ao final do artigo são anexados dois textos para fornecer mais exemplos da morfologia verbal desta língua.

PALAVRAS-CHAVE: Língua Waimiri Atroari; Morfologia Verbal; Clítico Interrogativo.

1 INTRODUCTION

Verbs are words which signify actions, events, or temporary states in relation to beings and things in the world. They are the core,
the binding element in most sentences in any language. Verbs can
serve as head of verb phrase, predicates of clauses, and they code
events in text. In this article, I discuss primarily the word-structure
(morphology) of verbs. I show the various grammatical affixes
(prefixes and suffixes) that can be attached to the verbal word. The
inflectional morphology of Waimiri Atroari verbs is typical of the
Cariban family (GILDEA 1998; MEIRA 1999).

The structure of the verb in Waimiri Atroari is basically
prefix-stem-suffix. Of all lexical classes, the verb is the richest
in morphological possibilities. It can take a large set of different
grammatical markers indicating person, tense-aspect-mood,
negation, causativization, clitics, as for example, the interrogative
clitic. The prefixes usually mark person and the suffixes mark
tense/aspect/mood, and valence change (causativization). Verb
stems in this language can have different shapes, including V,
VV, VC, VCV, CV, CVV, CVC, and CVCVCCV. In the examples
below, you can verify some of the grammatical affixes that the
verbs can take.1

a) woky i-eKy kra h-ce-ia
banana REL-juice 1PRO 1A-drink-T/A
'I drink the banana juice.'

1 Abbreviations: A – 'subject of transitive verb'; Abl – 'ablative'; AGT.PART
- 'agentivity particle'; ADJ – 'adjective'; ADV – 'adverb'; AL – 'allative'; CAUS
- 'causative'; COP – 'copula'; DAT – 'dative'; DES – 'deserative'; DEV – 'devalutive';
DIS – 'disjunctive particle'; EMPH – 'emphatic'; EVID – 'evidential'; IMPF – 'imminent
future'; IMP – 'immediate past'; IMP - 'imperative'; INT – 'interrogative';
INSTR – 'instrumental'; INSTR.N – 'instrumental nominalizer'; LOC – 'locative';
NEG – 'negation'; NOMLZ – 'nominalizer'; 2PART – 'second-position particle'; O
– 'object'; POS – 'possession'; PRO – 'pronoun'; REC.P – 'recent past'; REM.P – 'remote
past'; REDUP – 'reduplication'; RELF.LX - 'reflexive'; REL – 'relational prefix'; REM.F
- 'future remote'; REM.P – 'remote past'; S – 'subject of intransitive verb'; T/A
– 'tense/aspect; VAL – 'valuative'; VERB – 'verbalizer'; 1 – 'first person singular;
2 – 'second person singular or pl'; 3 – 'third person singular or pl'; 1+2 – 'first person
plural inclusive'; 1+3 – 'first person plural exclusive'.

b) amyra ram aa=inaka xiba m-ry-pia
2PRO 2PART 1-DAT fish 2A-give-IMP.P
'You gave fish to me.'

c) impa ianana ny-bia-pa
then I anana 3S-come-REM.P
'then I anana came to his own house.'

d) wykyr-emc ny-damem-pa,
man-DEV 3S-die-REM.P
'The man died.'

e) amyra mykyka m-ry-pia
2PRO 3PRO 2A-order-CAUS-IMP.P
'mykyka ini-se.
'You ordered him to see him.'

f) amyra ka ka aa=k-ini-pia.
2PRO 3PRO 10=2A see-IMP.P
'You saw me.'

g) M-ry-pia=e'
2s-understand-IMP,P-INT
'Did you understand?'

The structure of Waimiri Atroari verbs is summarized in
table 01 below:

Table 01 — Structure of Waimiri Atroari verbs

<table>
<thead>
<tr>
<th>Case marking</th>
<th>Clitic</th>
<th>Prefix</th>
<th>ROOT</th>
<th>Verbalizer</th>
<th>Nominalizer</th>
<th>Causative Negation</th>
<th>Imperative</th>
<th>Deserative tense aspect-mood suffixes</th>
<th>TAM</th>
<th>Interrogative clitic</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>aa=</td>
<td>-kyshb-shout</td>
<td>-py</td>
<td>-CAU</td>
<td></td>
<td>-pia</td>
<td>IMP</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>shout</td>
<td>1o</td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>hy-</td>
<td>-kyshb-shout</td>
<td>-py</td>
<td>-CAU</td>
<td></td>
<td>-pia</td>
<td>IMP</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>1A</td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
</tbody>
</table>

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There are three subclasses of verbs in Waimiri Atroari: transitive, intransitive, and copular. Based on morphosyntactic properties, it is observed a division between transitive and intransitive verbs. The transitive verbs are traditionally defined as the group of verbs which subcategorize for a direct object. Transitive verb stems can take both A and O prefixes. The intransitive verbs are often referred to as the group of verbs which do not subcategorize for a direct object. Here, I use the term more narrowly, to mean verbs that have only a subject, not an object. Intransitive verbs can only take one set of person markers. Intransitive verbs change valence when taking causative suffixes; as a result, they become transitive verbs taking direct objects. Transitive verb stems make implicit reference to two participants, A and O, while intransitive verbs denote only one participant, S.

A, O and S refer to the various participants of the event described by the verb on which they occur (COMRIE, 1981). In the present work, roles and grammatical relations are used as descriptive tools.

a) aa ram wy-synehka-tape
   1PRO 2PART 1S-disappear-REM.F
   ‘I will disappear.’

b) iry ka aa=kaka-ky
   3PRO EVID 1O-scratch-PAST
   ‘He scratched me.’

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c) Aa ram ka h-ini-pia.
   1PRO 2PART 3PRO 1A-see-IMP
   ‘I saw him.’

d) Amyra ram ka mu-wen-tah-py-piya
   2PRO 2PART 3PRO 2A-threw up-VERBL-CAUS-IMP
   ‘You made him throw up.’

Semantically, five different person marking prefixes can be distinguished – a first person, a second person, a third person, a first person dual inclusive, and a first person exclusive. The person markers have different allomorphs, depending on the the form of the stem to which they attach. Table 02 below summarizes its distribution:

Table 02—Person-marking clitics and prefixes

<table>
<thead>
<tr>
<th>Subjects</th>
<th>Objects</th>
<th>Possessives</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Intransitive</td>
<td>Transitive</td>
</tr>
<tr>
<td>1st sing.</td>
<td>w-/wy/-wu-</td>
<td>h-/hy/-hu-</td>
</tr>
<tr>
<td>2nd</td>
<td>m-/my/-mu-</td>
<td>m-/my/-mu-</td>
</tr>
<tr>
<td>3rd</td>
<td>n-/ny/-nu-</td>
<td>n-/ny/-nu-</td>
</tr>
<tr>
<td>1+2 (incl.)</td>
<td>h-/hy/-hu-</td>
<td>h-/hy/-hu-</td>
</tr>
<tr>
<td>1+3 (excl.)</td>
<td>n-/ny/-nu-</td>
<td>n-/ny/-nu-</td>
</tr>
</tbody>
</table>

Paradigms of transitive and intransitive verb forms with the prefixes marking person follow (more paradigms are provided in the appendix).

---

2 wy, my, ny, and hy-__C initial stem
w-, m-, n- and h-__V initial stem
uu, uu, nu, hu__bilabials
Transitive

hy-myryky-piiny ‘I fished’
my-myryky-piiny ‘you fished’
ny-myryky-piiny ‘she/he fished’
hy-myryky-piiny ‘we fished’
ny-myryky-piiny ‘we fished’

Intransitive

wy-rymy-tape ‘I will die’
my-rymy-tape ‘you will die’
ny-rymy-tape ‘she/he will die’
hy-rymy-tape ‘we will die’
ny-rymy-tape ‘we will die’

h-ee-ia ‘I drink’
w-yma-pa ‘I fell’
m-yma-pa ‘you fell’
n-yma-pa ‘she/he fell’
h-yma-pa ‘we fell’
n-yma-pa ‘we fell’

h-ape’-piya ‘I embraced’
w-inench-tape ‘I will dream’
m-inench-tape ‘you will dream’
n-inench-tape ‘she/he will dream’
h-inench-tape ‘we will dream’
n-inench-tape ‘we will die’

There are two sets of first person singular subject prefixes: w-/wy-/wu- and b-/by-/be-(Observe the examples above and below). The first set is used with strictly intransitive verbs such as rymy ‘die’, y ‘go’, tabkwa ‘jump’, and mynta ‘bled’. The second set is used with transitive verbs with personal objects such as ini ‘see’ and aape ‘push’ (see the appendix section), and transitive verbs with impersonal objects such as py ‘know’, ee ‘drink’, and wenta ‘vomit’. (The classification of certain verbs such as mynta ‘bled’ (intransitive) and wenta ‘vomit’ (transitive) is not explained.) This distinction is not made for any other person and number combination.

Go ‘y-‘
w-y-sa ‘I go’
m-y-sa ‘you go’
n-y-sa ‘she/he go’

Bled ‘mynta’
mu-mynta-pa ‘I bled’
mu-mynta-pa ‘you bled’
mu-mynta-pa ‘she/he bled’

The word for blood is mynt, in order to get the verb ‘bled,’ we add the verbalizer -ta.

2.1 TENSE/ASPECT SUFFIXES

The most important and indispensable elements attached to the verbal stem are the tense-aspect suffixes. They always appear finally in the verb construction. They serve to indicate a wide range of functions and meanings around the time value of the action/event/state described by the sentence. Table 3 below offers an overview of the distribution of the tense/aspect suffixes.

Table 03 - Illustration of Tense-Aspect Suffixes

<table>
<thead>
<tr>
<th></th>
<th>Past</th>
<th>Non-Past</th>
<th>Future</th>
</tr>
</thead>
<tbody>
<tr>
<td>REM.P</td>
<td>-pa</td>
<td>-i-c, -sa</td>
<td>IMM.F -te ~ -tce</td>
</tr>
<tr>
<td>REC.P</td>
<td>-piany</td>
<td>-pysa ‘interactive’</td>
<td>REM.F -tape ~ -tcape</td>
</tr>
<tr>
<td>IMP.</td>
<td>-pia</td>
<td>-sapa</td>
<td></td>
</tr>
<tr>
<td>Non-specified</td>
<td>-ky</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
In general, 'present time' is considered immediate, while an event long ago is considered remote. However, in Waimiri Atroari, it is possible to make events in the past seem more immediate or recent; therefore, in this language there are suffixes that indicate remote past -pa, recent past -piany (events that could be occurred in the same day, but also in the day before), immediate past -pia (an event that just happened), and a non-specified past -ky. The suffix -pa is most commonly used in narratives and in stories about remote events in the past, things that are finished and done with.

Formally, the future means talking about an event/action/state that has not yet begun, but is said to begin sometime in the future. The Waimiri Atroari language divides the future into imminent -te/-te and remote -tape/-teape. In this grammatical sketch, the suffixes -e, -ia, -ra, -apa, -pya (this last suffix indicates iterative) are classified as tense/aspect markers that denote a non-past notion. The difference among them is not clear. It requires further research. Waimiri Atroari has other suffixes that denote aspects, but they will be not discussed in this grammatical sketch. Paradigms of intransitive and transitive verb forms with the tense/aspect markers follow:

(1) remote past -pa

a) wy-synhka-pa
   1S-disappear-REM.P
   'I disappeared.'

b) m-ini-pa
   2A-see-REM.P
   'You saw it.'

c) impa tahkome ianana myryky maryba kapry i-te-pa
   Then elder ianana son song sing REL-heat-REM.P
   'Then the elders heard Ianana’s son singing.'

(2) recent past -piany

a) wy-synhky-piany
   1S-disappear-REC.P
   'I disappeared.'

b) m-ini-piany
   2A-see-REC.P
   'You saw it.'

(3) immediate past -pia

a) wy-synhky-pia
   1S-disappear-IM.P
   'I disappeared.'

b) m-ini-pia
   2A-see-IM.P
   'You saw it.'

(4) non-past (-e, -ia, -ra)

a) aa ram wy-mynt-e apieme iaky aa=wokyty-pia
   1PRO 2PART 1S-bleed-T/A because 1O-cut-IM.P
   'I am bleeding because I cut myself.'

(b) aa w-y-sa kaapa taka awaxi kyy-se
   1PRO 1S-go-T/A garden AL sugar cane cut-in order to
   'I am going to the garden plantation to cut sugar cane.'

(c) arawata ram i-e’y i-ee-ia
   Sp. of monkey 2PART fruit REL-drink-T/A
   'The guaiba monkey is drinking the fruit.'

(5) future -te/-te/-teape

a) aa ram wy-synhka-tape
   1PRO 2PART 1S-disappear-REM.P
   'I will disappear.'

b) k-em e ram ny-ryma-tape tavaxyry-pesa
   3PRO-DEV 2PART 3s-die-REM.F elder-in time
   'He will die in old age.'

c) aa h-eni-te
   1PRO 1A-see-IMM.F
   'I will see it.'
2.2 MOOD

Speech aspects in human languages may be used for many purposes, but the three main ones seem to be: to give information (declarative sentences), to ask for information (interrogative sentences), and to command action (imperative sentences). In this section, I discuss the imperative suffix and the negative suffix.

2.2.1 Imperatives

The purpose of the imperative sentence/clause form is for the speaker to get the hearer to act. This can be done in several ways, such as subtle and indirect, and direct. Here, I discuss just the direct form. There are three types of imperative suffixes in Waimiri Atroari: -ky, -hne, -kwapy. The suffixes -hne and -kwapy have a more restricted distribution; they occur principally with the verbs speak, hear, and look. However, they are found with other verbs, as in (7) below.

(6) ni-ky  ni-kwapy
  see-IMP  see-IMP
  'Look!' 'Look!'

(7) wen-ta-hne
  vomit-VERBL-IMP
  'vomit!'

(8) ka-ky  ka-kwapy  ka-hne
  speak-IMP  speak-IMP  speak-IMP
  'Speak!' 'Speak!' 'Speak!'

(9) kya-ky
  yell-IMP
  'Yell!

(10) ee-ky
  drink-IMP
  'Drink!'

(11) kryrywy  ni-ky
  snake  see-IMP
  'Look at the snake!'

(12) Suwa ram  ky-pia matuwe  ia  ana  kar-eme  ika-ky
    Suwa  2PART talk-IMP.P Matuwe  AGT.P Ana  kar-DEV  bite-IMP
    'Suwa ordered Matuwe to bite Ana Kareme.'

(13) taha  iakaha  ehry-ky
    big  drawing  paint-IMP
    'Paint the big drawing!'

In the negative imperative form, the form used to command people not to do something, which involves the negative suffix, the verb remains in its bare form, but now the imperative is marked by the particle kwe’ky.

(14) ni-huwa  kwe’ky
    see-NEG  IMP
    'Do not look!'

(15) wen-ta-ha  kwe’ky
    vomit-VERBL-NEG  IMP
    'Do not vomit!'

(16) kya-ha  kwe’ky
    yell-NEG  IMP
    'Do not yell!'

2.2.2 The Negation Suffix

In Waimiri Atroari, two negation suffixes occur with the verb form: -huan, and -ha (V-stem/'). They are always positioned after the verb root.

(17) awy  we-piany  dauna  se  kaka-ha
    1PRO  1COP-REC.P  Dauna  leg  scratch-NEG
    'I did not scratch Dauna’s leg.'
3 THE INTERROGATIVE CLITIC

As shown in table 01 in the template for verbs, the interrogative clitic is attached to the tense/aspect suffix slot. Therefore, I decided to discuss it in this article.

Questions are a request for information, when the speaker misses some information, and thinks that the hearer knows it. There are two general types of information questions: (a) yes/no questions in which the speaker wants the hearer to say whether it is true (yes) or false (no); and (b) Wh-questions in which the speaker knows most of the information, but is missing one element— as a result, the speaker asks the hearer to identify that missing element, for example the subject, direct or indirect object, time, place, or reason.

3.1 INTERROGATIVE FORMS

Interrogative forms are used when asking questions regarding who, what, whose, how, where. In Waimiri Atroari these are two forms:

18) warpya kynka-ha kwe’ky
bow break-NEG IMP
'Don’t break the bowl’

19) aa ram karyka iny-huwa we’xi w-ia
1PRO 2PART chicken eat-NEG DESID 1-COP
'I do not want to eat chicken.’

20) aa ram wy-tyrm-piany tymeti aa-iape-huwa
1PRO 2PART 1S-escape-nec. P jaguar 1O-take-NEG
'I escaped so the jaguar wouldn’t get me.’

(2) bypa ieka by naminj=e’
whose pet this dog-INT
'Whose is this dog?’

(3) apia ha iria ka typohinj=e’
what make 3PRO like/delicious-INT
'What does she like to make?’

(4) apia ha m-hipix=e’
what 2A-look for INT
'What are you looking for?’

(5) Ira’ a=iakyna n=e’
how 2POS-brother COP-INT
'How is your brother?’

(6) epe ky marim-eme my-myrykpy=pia=e’
Where this piranha-dev 2A-fish-IMP P-INT
'Where did you fish piranha?’

(7) apie’me iake saken-pa m-i=e’
why angry-EMPH 2-COP-INT
'Why are you angry?’

In Waimiri Atroari, even with a Wh-word occurring in the first position, we have the interrogative clitic =e’ in the last word of the sentence. However, sometimes the interrogative clitic does not appear. In the examples below, I illustrate where the interrogative clitic occurs and what it attaches to.

a) Cases Where the Interrogative Clitic Does Not Appear

(8) m-ii-pia’ kyry-heme
2A-kill-IMP cobra-DEV
'Did you kill the snake?’
(9) kyrywy tahsa iry
cobra big 3PRO
'Was the snake big?'

(10) wahpa a-iwapo-txany
much 2S-dance-T/A
'Did you dance a lot?'

(11) waha ka ipy marymah na
many? there piranha COP
'Are there many piranha?'

The cases where the interrogative clitic sometimes does not appear seem to be related to questions of the Yes/No type. However, that optionality does not occur with Wh- questions.

b) Interrogative clitics attach to verbs

(12) Temeh-eme m-itixky-pian=e'
Jaguar-DEV 2A-shoot-REC.P-INT
'Did you shoot the jaguar with an arrow?'

(13) Epe ka my-pyny-p=e'
where 3PRO 2A-take-REM.P-INT
'Where did you take it?'

(14) Epe ky marym-eme my-myryky-pian=e'
where ? pirana-DEV 2A-fish-REC.P-INT
'Where did you fish pirana?'

(15) Apie'me iake' ipyna xiba myryka m-y-sa-p=e'
why there fish fish 2A-go-REM.P-INT
'Why did you go there to fish?'

(16) Ira kak=e'
what talk-INT
'What is he saying?'

(17) Apia iakypa nyda taka m-aryma-tap=e'
when house AL 2S-come back-REM.P-INT
'When will you come back home?'

(18) Apiapy ka kwat-emt wu-pian=e'
where 3PRO monkey-DEV kill-REC.P-INT
'Where did he kill the black spider monkey?'

(19) Ira iake kyry-heme my-ry-pi=e'
what snake-DEV 2A-do-IM.P-INT
'What did you do with the snake?'

(20) Apia ha m-ipipix=e'
what 2A-look for-INT
'What are you looking for?'

(21) Epe iake my-tak-pi=e'
where 2A-lose-IM.P-INT
'Where did you lose it?'

(22) Apie'me iake k-emy i-myy-py ny-mynyt=e'
why 3PRO-DEV REL-hand? ny-hand-INT
'Why is his hand bleeding?'

To assure that this is a clitic, not just a verb suffix, I demonstrate that it can occur with all the word classes in this language. In verbs, the last vowel of the suffix that marks tense/aspect is replaced by the interrogative clitic: for example, -piany (recent past) becomes -pian=e', -pa (remote past) becomes -p=e', -pia (immediate past) becomes -pi=e', and -o (t/a) becomes -e' (glottalized).

c) Interrogative clitic with nouns and pronouns

(23) Bypa ieka by karyka=e'
whose pet this chicken-INT
'Whose is this chicken?'
In the example (23) above, you can note that when the interrogative suffix is added to the word karyka ‘chicken,’ the last vowel of the word is not deleted.

(24) Bypa ieka by naminj=e'
    whose pet this dog-INT
    ‘Whose is this dog?’

(25) Apia iaky iake kati icky-piany naminja=e'
    when pet? bite-RECIP dog-INT
    ‘When did the dog bite the child?’

On the other hand, examples (24) and (25) show the two possibilities. In (24), the last vowel of the word naminja ‘dog’ is deleted, but in (25), the interrogative suffix is attached to the word.

(26) Bypa ieka by waiama=e'
    whose pet this tortoise-INT
    ‘Whose is this tortoise?’

(27) Bypa ha b=e'
    who this-INT
    ‘Who is this?’

(28) Bypa ha k=e'
    who 3PRO-INT
    ‘Who is he?’

d) Interrogative clitic with adverbs

(29) Bypa ha itxa ta m-inipe-txane pana=e'
    what jungle LOC 2A-ver 7A yesterday-INT
    ‘What did you see in the jungle yesterday?’

e) Interrogative clitic with adjectives

(30) Bypa mydy-by tahi=s=e'
    whose house? big-INT
    ‘Whose big house is this?’

(31) Apia wiwe bahinj=e'
    what wood stick small-INT
    ‘What is the small wood stick?’

d) Interrogative clitic with locatives

(32) Bypa ha mimo'ah tuhsa samka tyhn=e'
    who that big hammock LOC-INT
    ‘Who is in that big hammock?’

c) Interrogative clitic with the copula

(33) Epe ky wer-e'me n=e'
    where ? woman-VAL cop-INT
    ‘Where are the women?’

(34) Epe ky wykyre-he'me n=e'
    where ? man-VAL cop-INT
    ‘Where are the men?’

(35) Sakenpa m-ia
    Angry 2-COP
    ‘Are you angry?’

(36) Sakenpa m-i=e'
    angry 2-COP-INT
    ‘Are you angry?’

(37) Wasypa m-i=e'
    hungry 2-COP INT
    ‘Are you hungry?’

(38) Wasypa m-ia
    Hungry 2-COP
    ‘Are you hungry?’
Examples (35) to (38) show the flexibility of the interrogative suffix with Yes/No questions. As you can see above in examples (12) to (22), the clitic occurs in the verb. However, it can occur in the last word of the sentence, such as nouns and pronouns (examples 23-28), adverbs (example 29), adjectives (30 and 31), locatives (example 32), and copulas (examples 33-37). Phonologically, sometimes the last vowel of the verb or noun is replaced by the clitic =e' (examples 12-22); on the other hand, note that sometimes there is no replacement of the last vowel. In that case, the clitic =e' is added at the end of word (examples 25-26) and 29. The second case does not occur with verbs.

Previously, I had considered the interrogative clitic to be a suffix. However, two factors, distribution (it can occur in different parts of speech) and location (specific place/rightmost word in the sentence) made me change the classification. Utilizing Anderson’s view (1992), the interrogative clitic in Waimiri Atroari seems to behave as a ‘special clitic’, which is located with a phrase that constitutes its scope, and it may appear at least initially, finally, or post-finally. In the case of the Waimiri Atroari language, the interrogative clitic occurs in the final position. Anderson says that clitics appear to be somewhat freer than affixes. They are much less sensitive to the properties of words (Anderson 1992).

4 FINAL REMARKS

There are few linguistic studies of the Waimiri Atroari language and all are relatively recent: Hill and Hill (1985), Lacerda (1991), Bruno (2003, 2004, 2005, 2006, 2008, and 2009). In this descriptive paper, I presented some of different grammatical markers that occur in Waimiri Atroari verbal morphology. Although the interrogative clitic appears in many of the lexical classes, it occurs in the verb morphology as well. Therefore, I chose to describe it in this paper.
## APPENDIX

### Verb 'to push'

<table>
<thead>
<tr>
<th>Person</th>
<th>Stem</th>
<th>Analysis</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>1A3O</td>
<td>Aa</td>
<td>ram k-e-ma h-aape-pia</td>
<td>1PRO 2PART 3PRO-DEV 1A-push-IM.P</td>
</tr>
<tr>
<td></td>
<td></td>
<td><em>I pushed him</em></td>
<td></td>
</tr>
<tr>
<td>2A3O</td>
<td>Amyra</td>
<td>ram k-e-ma m-aape-pia</td>
<td>2PRO 2PART 3PRO-DEV 2A-push-IM.P</td>
</tr>
<tr>
<td></td>
<td></td>
<td><em>You pushed him</em></td>
<td></td>
</tr>
<tr>
<td>3A3O</td>
<td>Ka</td>
<td>ram k-e-ma l-aape-pia</td>
<td>3PRO 2PART 3PRO-DEV REL-push-IM.P</td>
</tr>
<tr>
<td></td>
<td></td>
<td><em>We pushed him</em></td>
<td></td>
</tr>
<tr>
<td>1+2A3O</td>
<td>Kyka</td>
<td>ram k-e-ma h-aape-pia</td>
<td>1+2PRO 2PART 3PRO-DEV 1+2A-push-IM.P</td>
</tr>
<tr>
<td></td>
<td></td>
<td><em>We pushed him</em></td>
<td></td>
</tr>
<tr>
<td>1+3A3O</td>
<td>A'a</td>
<td>ram k-e-ma a=i-aape-pia</td>
<td>1+3PRO 2PART 3PRO-DEV 1+3A-push-IM.P</td>
</tr>
<tr>
<td></td>
<td></td>
<td><em>We pushed him</em></td>
<td></td>
</tr>
<tr>
<td>3A1+2O</td>
<td>Ka</td>
<td>ram k-aape-pia</td>
<td>3PRO 2PART 2O-push-IM.P</td>
</tr>
<tr>
<td></td>
<td></td>
<td><em>He pushed you</em></td>
<td></td>
</tr>
<tr>
<td>1+3A2O</td>
<td>A'a</td>
<td>ram a=i-aape-pia</td>
<td>1+3PRO 2PART 2O-push-IM.P</td>
</tr>
<tr>
<td></td>
<td></td>
<td><em>We pushed you</em></td>
<td></td>
</tr>
</tbody>
</table>

### Verb 'to rest'

<table>
<thead>
<tr>
<th>Person</th>
<th>Stem</th>
<th>Analysis</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>1A3O</td>
<td>Aa</td>
<td>ram ka h-irma-phy-piany</td>
<td>1PRO 2PART 3PRO 1A-rest-CASUS-REC.P</td>
</tr>
<tr>
<td></td>
<td></td>
<td><em>I made him/her rest</em></td>
<td></td>
</tr>
<tr>
<td>2A3O</td>
<td>Amyra</td>
<td>ram ka m-irma-phy-piany</td>
<td>2PRO 2PART 3PRO 2A-rest-CASUS-REC.P</td>
</tr>
<tr>
<td></td>
<td></td>
<td><em>You made him/her rest</em></td>
<td></td>
</tr>
</tbody>
</table>

### Verb to vomit/ threw up

<table>
<thead>
<tr>
<th>Person</th>
<th>Stem</th>
<th>Analysis</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>1sg</td>
<td>Aa</td>
<td>hu-wen-ta-pa</td>
<td>1PRO 1S-vomit-VERBL-REM.P</td>
</tr>
<tr>
<td></td>
<td></td>
<td><em>I threw up.</em></td>
<td></td>
</tr>
<tr>
<td>2sg</td>
<td>anyry</td>
<td>nu-wen-ta-pa</td>
<td>2PRO 2S-vomit-VERBL-REM.P</td>
</tr>
<tr>
<td></td>
<td></td>
<td><em>You threw up.</em></td>
<td></td>
</tr>
<tr>
<td>3sg/pl</td>
<td>mykyky</td>
<td>nu-wen-ta-pa</td>
<td>3PRO 3S-vomit-VERBL-REM.P</td>
</tr>
<tr>
<td></td>
<td></td>
<td><em>He/she/they threw up.</em></td>
<td></td>
</tr>
<tr>
<td>1+2 incl</td>
<td>kyky</td>
<td>hu-wen-ta</td>
<td>1+2PRO 1+2S-vomit-VERBL-REM.P</td>
</tr>
<tr>
<td></td>
<td></td>
<td><em>We threw up.</em></td>
<td></td>
</tr>
</tbody>
</table>

### Illustration of verbal morphology

<table>
<thead>
<tr>
<th>Vomit</th>
<th>See</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. -wen-ta</td>
<td>1. -ini-</td>
</tr>
<tr>
<td>vomit-VERBL</td>
<td>see</td>
</tr>
<tr>
<td>2. hu-wen-ta-pa</td>
<td>2. h-imi-pia</td>
</tr>
<tr>
<td>1S-vomit-VERBL-REM.P</td>
<td>1A-see-IM.P</td>
</tr>
<tr>
<td><em>I vomited</em></td>
<td><em>I saw</em></td>
</tr>
<tr>
<td>3. wen-ta-ha</td>
<td>3. ni-huwa</td>
</tr>
<tr>
<td>vomit-VERBL-NEG</td>
<td>see-Neg</td>
</tr>
<tr>
<td>'not vomit'</td>
<td>'not see'</td>
</tr>
</tbody>
</table>

| 4. wen-ta-ky | 4. ni-ky |
| vomit-VERBL-IMP | see-IMP |
| 'Vomit!' | 'Look!' |

| 5. hu-wen-tah-py-pia | 5. h-ini-py-pia |
| 1A-vomit-VERBL-CAUS-IMP | 1A-see-CAUS-IMP |
| 'I made him vomit.' | 'I made him see.' |

| 6. aa-wen-tah-py-pia | 6. aa-ini-py-pia |
| 1O-vomit-VERBL-CAUS-IMP | 1O-see-CAUS-IMP |
| 'He made me vomit.' | 'He made me see.' |

**Kaapy tahkome karykapa**

'The sky fell over the elders'

1. Pinapa tete tahkome pyna mepri n-tytyta-pa
   close ? elders place tapir 3S-come-REM.P

   pokia many
   pig and/with
   'The tapirs and wild pig came close to the place (village) of the elders.'

2. wahpakya tete tahkome pyna nykwa n-yhtxa-pa
   many ? elders place animals 3S-come-REM.P

   kaapy ia tybekia-paiy.
   heaven to tell-after
   'Many animals came close to the elder's place, (somebody telling to other that this happened before.'

3. Impa tahkome kabaha iee ini-apapa pokia iee
   Then elders armadillo tooth see-T/A pig tooth

**Note:**

BRUNO, A. C.

waryparyky
as
'Then the elders saw the armadillo's teeth as the wild pig's teeth.'

Then the elders perceived it because the armadillo's teeth are small, and they were big as the wild pig's teeth.

4. impa ty-perimipiy mydy ini-pysapa
   Then 3REFLX-brother-in-law house see-T/A
   'Then He saw the house of his own brother-in-law.'

5. impa tahkome ke-pa
   then elder say-REM.P
   'Then the elders say:'

   -there ? that house say-T/A elder
   REFLEX-brother-in-law house ?
   'There, is the house of that people' said the elders to his brother-in-law.

Note: The villages were very distant from each other, but a big fire had made a big clearing in the jungle that made it possible to see from a village to another.

7. ipaikypa kate' tahkome bekie-pa kaapy
   after that ? elders fall-REM.P heaven
   'After that, the sky fell on the elders.'

8. he'pia! he'pia! ka-pysapa tahkome irany xia
   poor us poor us ka-pysapa elder what ?
   say-T/A say-T/A
   ka-pysapa tahkome kaapy ia tywu-paiy.
   elder heaven to kill-after that
“Poor us, poor us” said the elders. “What is happening!” said the elders. After that the sky fell on the village and killed them.

9. **piria wukapy tete n-opyna-pa.**
   type of wood support ? 3S-save-REM.P
   ‘Only a man and a woman (siblings) that protected themselves in the central pool of the house were saved.’

10. **ie’ximpa ampa mydy tanypy wu-iapa**
    all other house ABL die-7/A
    ‘All the other people from the other houses died.’

11. **impa yry itxiri tyhnaka n-apyke-pa tykaty**
    then this land above 3S-pass-REM.P say

    **aa-pap-emne**
    1pos-father-Dev
    ‘Then (those people that were saved) passed by the house’s support to the new land said my father.’

Note: The house’s central pole made a hole in the sky. Through this hole the people who were saved exited, went above the old sky and built a new land. Today the Waimiri Atraori people live on the top of sky.

12. **takrehen myky kaapy n-yhixkwa-pa n-esa-pa**
    take time 3PRO heaven 3S-hurt-REM.P 3S-recovery-REM.P

    **tykaty tete tahkome etypa myry kaapy tykaty**
    say ? elder hot this heaven say

    **tahkome**
    elder

    ‘They took time to recover from all the injuries caused by the sky’s falling said the elders…the elders said that the sky was very hot.’

13. **piria wukapy tete n-iemkwa-pa araky kwetypyme**
    type of wood support ? 3S-reproduce-REM.P today ?
    ‘That brother and sister who survived, they reproduced. It is because of their children that we are here today.’

14. **impa takrehen myry ty-samka i-pyia-pa.**
    then take time this 3REFLX-hammock REL-find-REM.P
    ‘Then they took time to find their own hammock.’

15. **impa takrehen ny-patyme-pa ty-kaapa i-aktyxia-pa**
    then take time 1+3S-find-REM.P 3REFLX-garden REL-make/cut-REM.P
    ‘Then they took time to find a place to make their own garden plantation.’

16. **impa ty-mydy i-amynthia-pa tahkome takrehen**
    then 3REFLX-house REL-build-REM.P elder take time

    **ty-pyty-pe’me many pahky ty-kaapa i-aktyxia-pa**
    3REFLX-wife-Dev and/with ? 3REFLX-garden REL-make/cut-REM.P
    ‘Then the elders (the brother and sister that survived) took a long time to build their own house and make their garden plantation too, his wife also helped him to make the garden plantation.’

17. **wury kapy kypahkyn ty-kaapa i-aktyxia-pa**
    axe NEG made of 3REFLX-garden REL-make-REM.P

    **topy kypahkyn pakia iee kypahkyn waryna**
    stone made of wild pig tooth made of Sp.of rodent

    **iee kypahkyn ty-kaapa i-aktyxia-pa**
    tooth made of 3REFLX-garden REL-make/cut-REM.P

    **tahkome piemekyry-pahky**
    elder slowly-?
"The elders cut the garden plantation with the axe that was not made of steel, but made of stone, wild pig teeth, and paca teeth... they cut the garden very slowly."

18. impa iry iapykahp-e'me ny-kwahsa-pa
   then 3PRO survivor-VAL 3S-have sex-REMP

ny-kwahsa-pa ny-kwahsa-pa iry iapykahp-e'me
3S-have sex-REMP 3S-HAVE sex-REMP 3PRO survivor-VAL

n-iemkwa-pa
3S-reproduce-REMP
‘Then they, the survivors, had sex, had sex, had sex and produced many children’

19. impa niriky n-yme-pa e'nypeme ampa n-yme-pa
then son 3S-born-REMP help other 3S-born-REMP

ampa n-yme-pa.
other 3S-born-REMP
‘Then many sons were born to help them.’

20. impa tahkome n-iemkwe-pa piemkry-pahky kaapy
then elder 3S-reproduce-remp.p slowly? Heaven

wumaha ikaa pykry many
falling story tell and/with/too
‘Then the elders reproduced very slowly, and for each child who was born, they told the story of the sky’s falling.

21. ipaikypa iry i-aaia-pa Mawa tykatyka
After that 3PRO 3REL-take-remp.p Mawa say

aa-pap-eme myry pykry-maty
1POS-father-DEV 3PRO TELL-
‘After that Mawa took that couple who survived said my father.’

Note: The elders said that the sky had fallen three times already. The last time was when this pair of siblings survived.

22. tykaty aa-pap-eme a'a i-nepiaka-ty tymatry-ky say
   1POS-father-DEV 1+3PRO REL-? fall-T/A

tete wapy kaapy tymatry-ky tete wapy typhojinji
? many heaven fall-T/A ? many like
‘The sky fell a lot, it liked to fall...said my father to make us afraid.’

23. iawura iawura iawura ky tete tahkome baka-ty wapy
always always always ? ? elder kill-? many

kaapy
heaven
‘The sky always, always, always falls...killing many elders.’

Meie Ikaa
‘The story of manioc bread’

1. kokyne a'a n-itxi-pia minja i-kwa-se
   early 1+3PRO 1+3S-GO-IMP manioc REL-take-in order to

kaapa taka
   garden AL
‘Early in the morning, we went to the garden to collect manioc tubers’
2. impa n-arem-pia mydy taka minja
   then 1+3S-come back-IM.P house AL manioc
   i-ne-pia wyepe ta
   REL-P-IM.P jamaxi(kind of basketry) LOC
   'Then we came back to the house with the jamaxi full of manioc.'

3. iakypa a'a minja pixxi-pia maia ke
   after 1+3PRO manioc peel-IM.P knife INSTR
   'After that we peeled the manioc with a knife.'

4. iakypa a'a n-ikin-pia syna ke paxa taka
   after 1+3PRO 1+3-wash-IM.P water INSTR bowl AL
   'After that we washed the manioc with water in the bowl.'

5. iakypa a'a ny-dexkie-piany tapinja ta
   after 1+3PRO 1+3S-squeeze-REC.P sieve LOC
   'After that we squeezed the manioc in the sieve.'

6. iakypa a'a ny-ria-pia wiwi taka
   after 1+3PRO 1+3S-put-REM.P wood AL
   'After that we put the manioc in the press.'

7. impa wiwi tapary n-emine-pa minja behe
   then wood LOC 3S-dry-REM.P manioc dough
   'Then we dried the dough.'

8. impa a'a n-ike'la-pa meie impa-ry
   then 1+3PRO 1+3S-toast-rem.p bread then
   axinjaty tyhnaka
   stone griddle on
   'Then we toasted it into flat bread on the griddle.'

9. impa ny-tyky-pia.
   then 1+3S-finish-IM.P
   'Then we finished.'