THE VERBAL SEMANTICS OF BANAWÁ

A BA DISSERTATION SUBMITTED TO THE UNIVERSITY OF MANCHESTER

INGRID TURNER

2004
# Contents

Acknowledgments ........................................................................................................ p4

Notes on Abbreviations and Orthography .................................................................. p5

1. Introduction .................................................................................................................. p7
   1.1 Linguistic Affiliation ............................................................................................ p7
   1.2 The Banawá People .............................................................................................. p7

2. Methodology .................................................................................................................. p9
   2.1 Background and Objectives ................................................................................ p9
      2.1.1 Cut and Break Clips .................................................................................... p9
      2.1.2 Caused Position Clips ................................................................................ p10
      2.1.3 Staged Event Clips ..................................................................................... p11
   2.2 Field Methodology .............................................................................................. p12

3. Review of Literature on Banawá ............................................................................... p14
   3.1 Phonetic Statement .............................................................................................. p14
   3.2 Dixon – A-Constructions and O-Constructions in Jarawara ......................... p15
      3.2.1 Clause Structure ......................................................................................... p16
      3.2.2 Verb Structure ............................................................................................ p17
      3.2.3 na/ka morphemes ...................................................................................... p18
      3.2.4 Pivots .......................................................................................................... p19
      3.2.5 Suffixes ........................................................................................................ p21
   3.3 Alan Vogel ‘Jarawara Verb Classes’ ................................................................. p22
      3.3.1 Adjunct Marker yaa .................................................................................. p22
      3.3.2 ka/to morphemes ...................................................................................... p22
      3.3.3 Alternating Verbs ...................................................................................... p23
      3.3.4 Derivational Suffixes ................................................................................. p24
   3.4 Banawá Papers By Ernie & Barbara Buller...................................................... p25
      3.4.1 ‘Banawá – Ergative or Accusative?’ ........................................................ p25
      3.4.2 ‘Passives in Banawá’ – another use of to .................................................. p26
3.4.3 ‘Causatives’ ................................................................. p27
3.4.4 ‘Suffixes in Banawá’ ..................................................... p28

4. Analysis of Banawá Data .................................................. p30
   4.1 Causatives na/ka ......................................................... p30
   4.2 Adjuncts ................................................................. p34
   4.3 to- ........................................................................... p38
   4.4 ka-/to- as morphological markers of INTR variant of ‘break’ verbs p43
   4.4.1 to- ........................................................................... p43
   4.4.2 ka- ........................................................................... p47
   4.4.3 ka- as Morphological Marker of Middle Voice .......... p52
   4.5 Suffixes ................................................................. p54
   4.5.1 -ri .......................................................................... p54
   4.5.2 -ma ......................................................................... p54
   4.5.3 Directional Suffixes .................................................. p57
   4.5.4 Examples Of Banawá Suffixes ................................. p59
   4.6 Impersonal Passives .................................................... p63

5. Analysis Based on Max Planck Objectives ........................ p68
   5.1 Cut and Break ............................................................. p68
   5.2 Caused Positions ......................................................... p71
   5.3 Staged Events ............................................................. p73

6. Conclusion ........................................................................ p74

7. Limitations and Suggestions for Future Research ............... p78
   7.1 Limitations ................................................................. p78
   7.2 Suggestions for Future Research ................................. p80

References ........................................................................... p82
Acknowledgements

My thanks go to Dan Everett for providing the opportunity to do fieldwork in Brazil and teaching me so much along the way. Julia Reinbold helped me greatly with technological aspects of the trip. My deepest thanks go to the Banawá for sharing their language with us and making us feel welcome and safe in their village. This research was supported in part by grant BCS-0344361 from the US National Science Foundation.
**Notes on Abbreviations and Orthography**

The following abbreviations are used throughout this dissertation:

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Subject of transitive sentence, the A argument</td>
</tr>
<tr>
<td>ABS</td>
<td>ABSOLUTIVE</td>
</tr>
<tr>
<td>AC</td>
<td>A-Construction (A is pivot)</td>
</tr>
<tr>
<td>ACC</td>
<td>ACCUSATIVE</td>
</tr>
<tr>
<td>ADJ</td>
<td>ADJUNCT</td>
</tr>
<tr>
<td>APPL</td>
<td>APPLICATIVE</td>
</tr>
<tr>
<td>AUX</td>
<td>Auxiliary Verb</td>
</tr>
<tr>
<td>CAUS</td>
<td>CAUSATIVE</td>
</tr>
<tr>
<td>C&amp;B</td>
<td>Cut and Break clips</td>
</tr>
<tr>
<td>COMIT</td>
<td>COMITATIVE</td>
</tr>
<tr>
<td>C.P</td>
<td>Caused Position clips</td>
</tr>
<tr>
<td>D</td>
<td>Informant’s initial</td>
</tr>
<tr>
<td>DUAL</td>
<td>Dual Participants</td>
</tr>
<tr>
<td>ERG</td>
<td>ERGATIVE</td>
</tr>
<tr>
<td>INTR</td>
<td>Intransitive sentence</td>
</tr>
<tr>
<td>LOC</td>
<td>Locational</td>
</tr>
<tr>
<td>NOM</td>
<td>NOMINATIVE</td>
</tr>
<tr>
<td>NP</td>
<td>Noun Phrase</td>
</tr>
<tr>
<td>OC</td>
<td>O-Construction (O is pivot)</td>
</tr>
<tr>
<td>O</td>
<td>Object of transitive sentence, the O argument</td>
</tr>
<tr>
<td>on.M/F</td>
<td>Abbreviation of the meaning of –ri ‘on raised surface.’</td>
</tr>
<tr>
<td>S</td>
<td>Subject of intransitive sentence, the S argument</td>
</tr>
<tr>
<td>ST-EV</td>
<td>Staged Events clips</td>
</tr>
<tr>
<td>T</td>
<td>Informant’s initial</td>
</tr>
<tr>
<td>TR</td>
<td>Transitive sentence</td>
</tr>
<tr>
<td>UNACC</td>
<td>UNACCUSATIVE</td>
</tr>
<tr>
<td>UENERG</td>
<td>UENERGATIVE</td>
</tr>
<tr>
<td>V</td>
<td>Verb</td>
</tr>
<tr>
<td>VP</td>
<td>Verb phrase</td>
</tr>
<tr>
<td>3S.PRN</td>
<td>Pronoun, 3SG POSSESSOR</td>
</tr>
<tr>
<td>3SG.REF</td>
<td>3 person singular referent (with to-)</td>
</tr>
</tbody>
</table>
The orthography used throughout mostly conforms to the system adopted by the Bullers so that the literature on Banawá has a degree of standardisation. For example, the phoneme /o/ is always written as <o> even though it is realized as [u] sometimes. So when an informant said [tu] it is written as <to>. Buller does not make a distinction in his orthography between /j/ and /d/. I copied him by writing /j/ as <y> but found it helpful to write / d / as dž. The voiceless bilabial fricative /φ/ is represented by <f>. The glottal stop is not represented in the dictionary and as I am not sure of its distribution I have omitted it from the orthography.

The Portuguese loan words that appear in the data are below. In the glossing I have entered only their lexical meaning and not the fact they are a loan word:

- **bora** ‘ball’ (bora)
- **mesa** ‘table’
- **karafa** ‘bottle (garrafa)’
- **kadira** ‘chair’ (cadeira)
- **sapato** ‘shoe’
- **kahu** ‘car’
- **kafè** ‘café/coffee’
Introduction

This dissertation is based on data collected in the village of the Banawá tribe, who still live traditionally in the rainforest, in the summer of 2004. The stimuli I used aimed to show how a given language encodes actions such as cutting and breaking, causation and the structure of complex events.

1.1 Linguistic Affiliation

Banawá is a member of the Arawá family, which was classified as a member of the Arawakan family but is now considered unclassified. The other Arawá languages are Suruwahá, Paumari, Kulina-Deni and Madi. Their native ethnonyms are ha oda or ha e which literally means ‘us’ (1PL EXCL and INCL respectively). Their language is oda ati or e ati – ‘our speech.’ There are two neighbouring tribes – the Jamamadi and the Jarawara who speak mutually intelligible dialects that share about 95% vocabulary and have similar grammars. Grammatical information on Banawá and Jamamadi is limited, especially on areas of considerable difference from Jarawara. (Dixon, Jan 2000: 52) I used the information on Jarawara as a guide because there is less information on Banawá.

1.2 The Banawá People

The tribe comprises of approximately 80 people living along the Kitia river, located in the South-West Brazilian Amazon rainforest. The men can speak Portuguese whilst the women have limited or no knowledge of it.

The Banawá had a long history of collecting rubber and probably had contact with Brazilians in the early 1900’s. Following a conflict with Brazilians who lived along
the Purus river in the 1940’s the tribe disappeared into the jungle. No further contact was made until the 1960’s and since then there have been a number of missionaries in the village. The current SIL missionaries have been there for six years. (Ernie Buller: pers.comm).\textsuperscript{1} An airstrip has been built, meaning the Banawá are less isolated than before and have access to medical treatment in the city. Their increasing Western appearance and possessions have been a gradual result of increasing contact with the Western world.

A sobering fact is that Banawá, like most indigenous Amazonian languages, is unlikely to be spoken in about 50 years due to the inevitable encroachment of the West on their traditional way of life.

---

\textsuperscript{1} I would like to thank Ernie Buller for a detailed account about the history of the Banawá people.
Methodology

2.1 Background and Objectives

The data was collected during a two-week stay (July 9\textsuperscript{th} – July 22\textsuperscript{nd} 2004) in the Banawá village as part of a project on intonation and information structure in six Amazonian languages. I did not collect data on intonation but concentrated on cut and break verbs, causatives and event representation. This was part of a stimulus pack from the Max Planck Institute for Psycholinguistics, Language and Cognition.

2.1.1 Cut and Break Clips

The cut and break clips aimed to:

- Determine the extensions of the verbs used to describe cut and break actions based on range of clips the verbs describe.

- Determine whether a particular cut and break verb co-lexicalises:

  - **manner of action** (hack, slash)
  - **instrument or part** (stab $\rightarrow$ sharp point, cut $\rightarrow$ blade edge, hammer $\rightarrow$ blunt projection, saw $\rightarrow$ serrated)
  - **manner of state changes** (split, break)
  - **object type** (shatter $\rightarrow$ rigid object)

- Determine whether Banawá shows a trend towards lexicalisation of some rather than other of these features across the cut and break domain.
• Test the hypothesis that the lexicalisation processes above have an impact on the verbs’ argument structure properties:

→ verbs that co-lexicalise only instruments or manners of action are UNERG or TR that antipassivise.

→ verbs that co-lexicalise only object type or manner of state change are UNACC or TR that anticausitivise or they can undergo a causative-inchoactive alternation, investigated by testing grammatical behaviour of verbs in data and elsewhere.

(‘Manual for the field season 2001’ ed. Steven Levinson & Nick Enfield: 90)

2.1.2 Caused Position Clips

The aim of the caused position clips was to ‘examine the role of the external agent and dynamism in the use of the positional verbs in locative constructions.’ (M.P field manual: 126). It also sought to determine whether the verbs used to describe stative locative positions were used in the causative locative positions. Other variables were introduced such as non-canonical positions and a visible vs invisible end state (for example, something being put in a box). Different topological relations were also depicted such as support by a surface, containment, leaning, hanging and “forked between”.
2.1.3 **Staged Event Clips**

The aim of the staged event clips was to examine how complex events were segmented into micro-events, what information is expressed, and how it is ordered. Each set of clips is designed to elicit certain different aspects and are denoted by corresponding letters:

- **ET** = Event Typicality
- **M** = Multi Verb Constructions (MVC’s)
- **B** = Ball scenes
- **C** = Car scenes
- **P** = Plate scenes
- **T** = Transfer scenes

Research into MVC’s began when German and English linguists realised, unlike their own languages, that other languages encode a single action with two or more verbs. The clips seek to determine:

- what kind of verbs constitute these MVC’s, how freely are they combinable, and how productive these MVC’s are. Can the same event be described by MVC’s that show different ordering of the verbal elements?

- how are perceived events described? What is the distribution and productivity of the grammatical resources in the language and do the typicality effects arise from the morphemes/constructions involved or are they purely pragmatic?
2.2 Field Methodology

Prior to our arrival into the village I watched the clips from the Max Planck field clips, wrote down my own responses, and worked out which ones were testing what variable. For example, there was a group of spontaneous breakage clips dispersed randomly throughout the set that tested if a cut and break verb could be used in an INTR sentence, or if it was impossible to express the breakage without overt mention of AGENT. A disadvantage of this elicitation method is that it does not represent natural discourse but the advantage it brings by standardising the stimuli renders it empirically valid cross-linguistically.

I started by recording the names of trees and animals native to the area using detailed picture books, a DAT recorder and a high quality head microphone. I then listened to the responses and transcribed the information using the IPA.

I used a laptop to run the Max Planck stimuli clips from a CD. When the informant arrived at the start of each session we had some coffee and talked as much as my Portuguese would allow. Then I showed the informant the clip, usually twice and recorded their immediate response using the same equipment as before. I got them to repeat what they said after watching the clip for the second time.

Before every session started I organised my papers so I had written the clips numbers out. This ensured I always knew exactly which clip each transcription referred to. It also made the subsequent cross reference/checking of data with second transcriptions and translations much easier. I transferred the data from the DAT tape to minidisk. This facilitated the transcription because it was easier to split up the data so a clip
response corresponded to a track number on the minidisk than to do the same using the DAT. I also ensured I cross referenced the ‘track’ (clip) number on the minidisk with the corresponding response on paper so there was no confusion as to which response referred to which clip.

Each recording took place in a traditional Banawá house. As there were only a couple of walls and an abundance of insects, there was some background noise, but the quality of the microphone meant the informant’s responses were still clearly audible.

After each session I immediately transcribed it and then went over it with the informant, repeating their answer and checking the phonetics. Quick translation was made possible by the informants’ assistance in Portuguese (the first - T, who I worked with most, spoke better Portuguese then the other - D) and I simply would not have been able to analyse the amount of data I had in the time available without the dictionary produced by Ernie & Barbara Buller.
3 Review of Literature on Banawá

In this section I will summarise the literature on Banawá. All examples are my own unless otherwise stated.

3.1 Phonetic Statement

Following the analysis of Buller, Buller and Everett, the phonemes of Banawá are:

Table 1 Consonants:

<table>
<thead>
<tr>
<th></th>
<th>Bilabial</th>
<th>Alveolar</th>
<th>Post-alveolar</th>
<th>Palatal</th>
<th>Velar</th>
<th>Labio-velar</th>
<th>Glottal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plosive</td>
<td>/p/</td>
<td>/t/</td>
<td>/d/</td>
<td>/k/</td>
<td></td>
<td>/ʔ/</td>
<td></td>
</tr>
<tr>
<td>Affricate</td>
<td></td>
<td>/d/</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nasal</td>
<td>/m/</td>
<td>/n/</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fricative</td>
<td></td>
<td>/φ/</td>
<td>/s/</td>
<td></td>
<td></td>
<td>/h/</td>
<td></td>
</tr>
<tr>
<td>Approximant</td>
<td></td>
<td>/w/</td>
<td>/ɾ/</td>
<td>/l/</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(The symbol to the right in each column represents a voiced consonant.)
Table 2 Vowels:

<table>
<thead>
<tr>
<th></th>
<th>Front</th>
<th>Mid</th>
<th>Back</th>
</tr>
</thead>
<tbody>
<tr>
<td>Close</td>
<td>/i/</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Close-mid</td>
<td>/e/</td>
<td>/o/</td>
<td></td>
</tr>
<tr>
<td>Open</td>
<td></td>
<td></td>
<td>/a/</td>
</tr>
</tbody>
</table>

The front vowels are unrounded whereas the back vowel is rounded. [u] is an allophone of the phoneme /o/, which may also be realised as [o]. This occurred regularly in my initial phonetic transcriptions. For example, the morpheme to- ‘movement away’ was realised as both [to] and [tu] by both speakers regularly.

3.2 Dixon - ‘A-Constructions and O-Constructions in Jarawara’.

Discourse in Jarawara (and Banawá) is highly structured and Dixon states that ‘the grammatical properties of clauses cannot be assessed usefully outside of the discourse context’ (2000: p23). I have some examples of the constructions he discusses, even though they were elicited in a non-discourse context. It is still useful to study the grammatical properties of these clauses precisely because they occurred out of a discourse context.
3.2.1. Clause Structure

Dixon (2000: 24-25) lays out the clause structure in Jarawara as:

1. Clause initial peripheral elements (do not occur in my data).

2. Core NP’s (S in intrans, A and/or O in trans) A and O can occur in any order as there are no ordering constraints. The predominant order from my data was A then O:

   \[
   \text{maki jama baa na-rei} \\
   A \quad O \quad V \quad \text{AUX-Suffix.m} \\
   \]

3. Predicate - includes obligatory pronominal reference to core arguments. My data does not contain pronominal reference to the arguments because all the elicited sentences are standard transitive constructions with two overt NPs in the preverbal position.

4. Clause final peripheral elements, such as NP’s and subordinate clauses. Dixon does not explicitly mention adjuncts but many adjuncts occur post verbally.

   \[
   \text{maki awa ini baa ka-nei fanaku-dža} \\
   A \quad O \quad V \quad \text{AUX.V-} \quad \text{N-ADJ} \\
   \]
3.2.2 Verb Structure

Table 3 Jarawara and Banawá Verb Structure:

<table>
<thead>
<tr>
<th></th>
<th>1 Pronoun slot</th>
<th>2 Pronoun slot</th>
<th>3 Prefixes</th>
<th>4 Root</th>
<th>5 AUX</th>
<th>6 Suffixes</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>I</td>
<td>II</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Obligatory in all TR clauses</td>
<td>Obligatory in all TR clauses</td>
<td>Optional</td>
<td>Optional</td>
<td>Obligatory if non-inflecting V</td>
<td>Optional</td>
<td></td>
</tr>
<tr>
<td>O (TR object function)</td>
<td>S/A (INTR/TR subject function)</td>
<td>hi- (OC)</td>
<td>ka- (COMIT, APPL)</td>
<td>na- (CAUS)</td>
<td>na ha</td>
<td>56 attested in 19 slots</td>
</tr>
</tbody>
</table>

Verbs fall into two classes. Inflecting verbs accept prefixes and suffixes themselves:

S.E 19ET D

*maki*  
*tafai*  
*ita-riei*

man.M  
eat.M  
sit-on.M

‘The man is eating sitting down.’
Non-inflecting verbs have to be followed by an auxiliary verb, which is usually *na*, following Dixon’s analysis (2000: 24). Several hundred verbs take *na* whilst a dozen or so take *ha*. In my data it is only *na* that appears:

C&B 3 D

\[
\begin{array}{cccccc}
maki & awa & ini & kaa & na-kosei \\
\end{array}
\]

‘The man chops the stick in two.’

Verb suffixes show gender agreement only when predicate final. (Dixon 2000: 27)

C&B 10

\[
\begin{array}{ccc}
wisi & nei \\
cut & AUX.M \\
\end{array}
\]

C&B 26

\[
\begin{array}{ccc}
wisi & na-kosei \\
cut & AUX.V-separate.M \\
\end{array}
\]

3.2.3 *na/ka* morphemes

Dixon points out a full paper would be needed to discuss the Jarawara *ka/na* morphemes. The general points he makes are when *na* occurs in the 3\textsuperscript{rd} prefix position it is the causative morpheme. Usually it is used with INTR to form TR.

*ka* occupies the 2\textsuperscript{nd} verbal prefix slot and has a wide range of meanings and uses. A semantic use of *ka* indicates a participant is inside of something, is accompanied by something, is full, or has dual number. (Dixon 2004: 258-265) Syntactically, *ka* can have an applicative use. It derives a transitive stem from an intransitive root. Original, underlying S becomes A, and what was the peripheral NP is brought into core O function.
Payne (1997: 186-187) defines the applicative as an operation whereby a verb is marked for the semantic role of direct object. It brings a peripheral participant into focus by making it the direct object.

3.2.4 **Pivots**

Dixon (2000: 29-30) defines pivots as topics around which discourse is organised. A topic will recur in several clauses and the linking of clauses operates in terms of pivots. Jarawara has two types of transitive constructions with the pivot of one being different from the other. Dixon describes a pivot as an argument shared with the preceding and/or following clause/s.

The A-Construction (AC) is used when the pivot is in A function in the clause. The pivot is most likely to be in A function in a transitive clause because most texts describe people doing things and as such can be regarded as an unmarked transitive construction type. Most single clause utterances are ACS.

C&B 1 D

<table>
<thead>
<tr>
<th>maki</th>
<th>yama</th>
<th>einoki</th>
<th>ewis-kasei</th>
</tr>
</thead>
<tbody>
<tr>
<td>man.M</td>
<td>thing.F</td>
<td>middle</td>
<td>cut-separate.M</td>
</tr>
</tbody>
</table>

‘The man cuts the thing separate in the middle.’

This is an AC because the pivot is in A-function, shown by gender agreement with the AGENT on the verb. It is the unmarked transitive clause type.
The O-Construction (OC) is used when pivot is in O function in the clause. The pivot is most likely to be in O function when the text describes things being done to an object/person. It can be regarded as marked construction type, used only when pivot argument in O function.

C&B 28\(^1\) D

\[
\begin{array}{llll}
maki & aba & wisi & na–kosei \\
\end{array}
\]

‘The man cuts the fish,

\[
\begin{array}{llll}
teme & wisi & hi–na–kosa \\
\end{array}
\]

then the tail gets cut off,

\[
\begin{array}{llllll}
hi–nei & kotee & soo & na–rei & awa–baki–dža \\
\end{array}
\]

and then he leaves the pieces on the table.’

The pivot here is the fish (specifically the tail), which is the O of the first TR clause. This is signalled with \(hi\)-. Note how \(kosei\) in the first clause references the gender of \(maki\), which is the A in the AC. In the OC, the form \(kosa\) appears because the default gender is feminine.

\(^1\) Alan Vogel pers.comm. – I am grateful to Alan Vogel for the following information for translating and analysing this sentence. \(hi–nei\) occurs because it is a list construction and therefore the AUX is the list AUX. soo na–rei is a suppletive plural root, which makes it ‘pieces’, not ‘piece’.
3.2.5 Suffixes

The suffixes that appear in the Banawá data are glossed as follows by Dixon:

First Echelon:

-\textit{misa} ‘up’
-\textit{ri} ‘raised surface, edge’
-\textit{risa} ‘down’
-\textit{kosa} ‘between 2 extremes’
-\textit{kasa} ‘a lot at once’
-\textit{ma} ‘back, return’
-\textit{witi} ‘from a place, outward from the centre’

Second Echelon:

-\textit{kima} ‘two participants, a pair’

Sixth Echelon:

-\textit{bisa} ‘also’

Dixon states that the echelons above contain the ‘normal’ suffixes, that is, suffixes that do not trigger ‘prefix retaining or poaching’. The basic meaning of -\textit{ma} is ‘back to a place’. Other related meanings Dixon lists are ‘arrive back at a place’, ‘call back’, ‘return back’, ‘put back’, and ‘return to a state’.
3.3 Alan Vogel ‘Jarawara Verb Classes’

Vogel’s main findings from Jarawara will be presented with Banawá examples where possible.

3.3.1 Adjunct Marker *yaa*

The corresponding marker in Banawá is *dža*. Like Jarawara, it can ‘relate to an NP or a clause, but in either case it always follows the phrase it relates to.’ (Vogel 2003: 81) When the marker pertains to a clause it gives a reading of ‘when’ or ‘if’. I do not have any examples of this use. When it is attached to an NP it can mean ‘to, with, from, over, through.’

3.3.2 *ka/-to-* morphemes

I have already discussed the COMIT use of *ka-* in the section on Dixon. Vogel reiterates the general theme of accompaniment that *ka-* conveys. Vogel’s assessment (2003: 95) of *to-* is as follows:

● ‘may indicate change of state which may also mean it is associated with a change in transitivity.’

● ‘may indicate motion away from the speaker’

● ‘associated with unaccusativity’

---

1 This is an example of how the two dialects are related. The adjunct marker in each is comprised of a palatal consonant followed by the vowel /a/.
3.3.3 Alternating Verbs

This section discusses a related use of *to-ka* involving INTR variants of ‘break’ verbs that can be classed as UNACC. Pinker proposes several basic thematic cores that are common across certain groups of verbs. For example, content orientated verbs like ‘pile’ encode the idea that ‘X causes Y to move/into Z’, whilst container orientated verbs like ‘stuff’ have as their basic core the notion that ‘X causes Z to change state by means of moving Y into/onto it’. A verb is said to be alternating when it is associated with both cores and non-alternating verbs are only associated with one of these cores. (2003: 39-44) Vogel states that for Jarawara the content/container categories are only relevant for a few verbs and the most significant categories are theme, goal, and manner and change of state (2003: 44).

Levin and Rappaport term some verbs as ‘causative alternating verbs’. Whether they appear in an INTR or TR clause does not matter - they are always externally caused. This cannot be said of the INTR versions of verbs like ‘gallop’ or ‘run’.

Levin and Rappaport’ prediction is that externally caused verbs of change of state will be morphologically marked when intransitive. This is to reference the omitted argument that is present in the event structure but not in the surface representation. Vogel shows how some Jarawara verbs do alternate in the way predicted, using *baka na* ‘break TR’ and *baka to-na* ‘break INTR’. (Vogel 2003: 51-54)
3.3.4 Derivational Suffixes

Although Vogel assumes suffixes that involve changes in argument structure are derivational, he acknowledges some derivational suffixes may not be responsible for such alternations (2003: 98). Vogel considers suffixes to be those that can be used with *to*- and do not occur with other directional suffixes (2003: 99).

Vogel notes there are two motion verbs that do not need suffixes to convey the notion of direction. Levin and Rappaport define manner of motion verbs as UNACC with a goal phrase and ERG without – although both uses can be agentive. A difference in aspect can also occur because ‘run’ is telic with a goal phrase but atelic without. The generalisations that could be made about Jarawara manner of motion verbs and the aspectual and syntactical differences caused by directional suffixes are not entirely clear. (Vogel 2003: 101)

Vogel notes how verbs of spatial configuration can have a maintain position sense and an assume position sense. The English verb ‘sit’ can have either sense but with the directional suffix, ‘down’, it can only mean an assumed position. Jarawara verbs can behave in the same way. Vogel uses ‘stand/stand up’, but I have more data relating to ‘sit/sit down’. (See section 4.5.2)
3.4 Banawá Papers By Ernie and Barbara Buller

3.4.1 ‘Banawá: Ergative or Accusative?’

In a NOM/ACC system the S of an INTR and the S of a TR are marked the same with NOM morphology. A separate set of ACC markers are used to mark the TR objects.

In an ERG/ABS system the S of INTR sentence and the O of TR are marked the same with ABS morphology. A separate set of ERG markers is used to mark the TR S. The Bullers use the semantic terms ‘AGENT’ and ‘PATIENT’ in the paper ‘because these descriptions remain the same no matter what analysis we are working from.’ (Buller 1991: 2).

The ACC analysis states the S always controls agreement. This is the pattern in Banawá with NP structure, INTR and statives. These do not have both AGENT and PATIENT but gender agreement is with the AGENT:

<table>
<thead>
<tr>
<th>C&amp;B 7 T</th>
<th>C.P 2 D</th>
</tr>
</thead>
<tbody>
<tr>
<td>fana</td>
<td>ita–ria</td>
</tr>
<tr>
<td>woman.F</td>
<td>sit–on.F</td>
</tr>
<tr>
<td>awa</td>
<td>afei</td>
</tr>
<tr>
<td>tree.F</td>
<td>leaf.F</td>
</tr>
<tr>
<td>wada</td>
<td></td>
</tr>
</tbody>
</table>

‘The woman is sitting’. ‘The tree (stick) is there (i.e. on the table)’

Gender agreement in TR clauses is sometimes controlled by the agent (Dixon’s A-Constructions) and sometimes by the patient (Dixon’s O-Constructions). Buller classes the A-Constructions as ‘active transitives’ and the O-Constructions as ‘passive’ (1991: p4). This is because when the PATIENT is the topic it remains in focus through the passive construction, which occurs most often in discourse.
Buller emphasises the gender agreement rule - the subject controls the agreement – is supported by the fact simple phrases, isolated elicited phrases are always active TR and because the passive (O-Construction) only occurs in a discourse context. (See section 3.2 where Dixon reiterates this.) My data shows they can also occur in a non-discourse context because one of the functions of the O-Construction in my data is to track what is happening to the object.

Some of the criteria for an ERG system can also be filled in Banawá because ergativity involves the TR O being treated the same as the S of a TR. Buller accordingly analyses the O-Construction as TR and the A-Construction as the antipassive because the subject governs agreement. However, Buller ultimately rejects the ERG analysis in favour of the ACC analysis because a key feature of an ERG system is not present in Banawá. ‘An ergative system characteristically has two sets of pronouns, one for the ergative case, and another for the absolutive case…there are not two sets of pronouns used in this way in Banawá, as ergativity stipulates by its very definition.’ Furthermore, if the A-Construction is analysed as the anti-passive, it cannot fulfil the criteria because although it does emphasise the agent, it does not de-emphasise or omit the patient. On the contrary, it omits the emphasised participant. (1991: 10)

3.4.2 ‘Passives In Banawá ’ – another use of to-

Buller discusses the ‘impersonal passives’ which occurs in two forms, one with teɛ/tei (CUSTOMARY) of which I have no examples, and the other with pronominal to-. Buller notes they could be the same construction but that a particular class of verbs could require to- in order to form the impersonal passive, which puts the agent firmly in the background or to deal with unknown agents. Buller suggests the purpose of the
impersonal impasseive could be to focus on the verb and the action involved rather than one of the participants. (‘2-23-94: p2)

Buller asserts the passive construction is usually signalled by hi but sometimes gender agreement alone can indicate the passive. This only happens when a person pronoun has superceded the only allowable position that hi could occur in. My data does not contain any person prefixes. This is probably because every clause contains 2 preverbal NP’s and the arguments the NP’s specify are in the third person - which is a zero morpheme in Banawá. This means I do not have any examples of the passive construction where hi is absent and the gender agreement alone conveys passivity. (See section 4.6)

3.4.3 ‘Causatives’

Valency can be semantic and/or syntactic. Semantic valence refers to the number of arguments that are required ‘on stage’ in the scene expressed by the verb. So ‘eat’ always has a semantic valence of 2. Syntactic valence refers to the number of arguments in any given clause. (Payne 1997: 169-170) Even though ‘eat’ has a semantic valence of 2 it can appear in a construction with a syntactic valence of 1:

(S.E 34ET D)

\textit{maki tafe}

\begin{verbatim}
man eat.M
\end{verbatim}

‘The man is eating.’ (Semantic valence = 2, syntactic valence = 1 )
maki yifari yume nei
man banana eat AUX.M

‘The man eats the banana.’ (Semantic valence = 2, syntactic valence = 2)

Therefore the causative alternation (no Banawá data for this) could yield either ‘the man made me eat’ with a syntactic valence of 2 due to the CAUS construction or ‘the man made me eat the banana’ with a syntactic valence of 3.

Causatives in Banawá can be morphological or analytical. The CAUS morpheme for inflecting verbs is na- which immediately precedes the root. It can be preceded only by pronouns or ka- (COMITATIVE). Buller uses the terms AGENT and PATIENT for the participants in TR and CAUS clauses.

3.4.4 ‘Suffixes In Banawá’
The suffixes that appear in the data are glossed as follows by Buller (7-29-93: 1-2). He points out that Banawá speakers do not tend to use much more than 2 or 3 suffixes at a time – which is borne out by the data. Below is the suffix template (Buller 7-29-93: 1). The ones that appear in my data are underlined – see section 4:

<table>
<thead>
<tr>
<th>nisa</th>
<th>ma</th>
<th>kasa</th>
<th>makia tasa</th>
<th>bisa</th>
<th>kima</th>
</tr>
</thead>
<tbody>
<tr>
<td>misa</td>
<td>mina</td>
<td>mata</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>sama</td>
<td>naba</td>
<td>rawa</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>tima</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>morisa</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Some of his definitions are different from Dixon’s. (See section 3.2.5 above).

Table 4  Jarawara and Banawá Suffix Definitions:

<table>
<thead>
<tr>
<th></th>
<th>DIXON’S DEFINITION</th>
<th>BULLER’S DEFINITION</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>bisa</em></td>
<td>‘also’ clause final element</td>
<td>‘also’</td>
</tr>
<tr>
<td><em>kasa</em></td>
<td>‘once, result clearly achieved’ (2004: p145-146)</td>
<td>‘separate’</td>
</tr>
<tr>
<td><em>kima</em></td>
<td>‘two participants, a pair’</td>
<td>‘both’ dual Subject – S/A</td>
</tr>
<tr>
<td><em>ma</em></td>
<td>‘back, return’</td>
<td>‘ADV RET/REP’</td>
</tr>
<tr>
<td><em>misa</em></td>
<td>‘up’</td>
<td>‘up’</td>
</tr>
<tr>
<td><em>nisa</em></td>
<td>no definition</td>
<td>‘down’</td>
</tr>
</tbody>
</table>
4. **Analysis of Banawá Data**

In this section I will exemplify the points discussed in the literature review where the Banawá data is available.

4.1 **Causatives na- and ka-**

Refer to section 3.2.3. & 3.4.3

All the CAUS examples in the data occurred in the caused position clips. I do not have any examples of *na* prefixed with pronouns or *ka*.

I have 23 examples of the causative morpheme from the caused position clips. 19 of the occurrences specify a location using the ADJ phrase. Buller states that Banawá generally limits the number of participants to 2 in a main clause so this is expected.¹

Most of the cut and break clips depicted an agent positioning a patient which constituted the main clause, with the locational argument being expressed as an adjunct. Payne’s definition of a CAUS is a construction that ‘contains in its semantic or logical structure a predicate of cause. One argument of this clause is a predicate which expresses an effect.’ (Payne 1997: 176)

C.P 20 D *maki karafahodi na-wa-riei awa-boki-dža*

man bottle CAUS-stand-on.M wood-flooring-ADJ

‘The man stands the bottle on the table.’

¹ I have one example where there are three participants.

*maki fana yuma daa to-na-mai*

man.M woman.F thing.F give MOV.AWAY-AUX-ADV.M

‘The man gives the thing to the woman.’
The convention for showing the lexical representation of a causative construction is:

$$\text{CAUS } (x, P) = x \text{ causes } P$$ (Payne 1997: 176). So example C.P 20 above would be represented like this:

$$\text{CAUS } (\text{maki, nawariei (karafahodi, awabokì)}) \rightarrow \text{ The man stands the bottle on the table.}$$

Usually the causative morpheme $\text{na}$- is used with $\text{INTR}$ to form $\text{TR}$:

C.P 25 T

\[
\begin{array}{ll}
\text{karafahodi} & \text{we-re} & \text{ne-mesa-mase-dža} \\
\text{bottle.F} & \text{stand-on.F} & \text{NOM.AUX-table-top-ADJ} \\
\end{array}
\]

‘The bottle is standing on the table.’

D \text{ karafahodi we-re awa-boki-dža}

\[
\begin{array}{ll}
\text{bottle.F} & \text{stand-on.F} & \text{wood.F-flooring. F-ADJ} \\
\end{array}
\]

‘The bottle is standing on the table.’

These are $\text{INTR}$. The $\text{ADJ}$ phrase\(^1\) is not an argument that $\text{were}$ subcategorises for because otherwise it would occur pre-verbally, shown by the $\text{TR}$ examples below:

C.P 14 D

\[
\begin{array}{lll}
\text{maki} & \text{karafahodi} & \text{na-wa-riei} \\
\text{man.M} & \text{bottle. F} & \text{CAUS-stand-on.M} \\
\end{array}
\]

‘The man stands the bottle up.’

\(^1\) Note how informant T uses a Portuguese word to express the $\text{ADJ}$ phrase. He used $\text{nemesamasedža}$ consistently whereas informant D consistently used the Banawa phrase $\text{awabokidža}$. This regular, invariable difference in expression between the informants could be caused by greater Portuguese proficiency on T’s behalf or could be down to differing attitudes to Banawa.
Dixon says *na* is sometimes used with an TR verb. The original A argument becomes O of the CAUS, with original O being moved to peripheral position and marked with an all-purpose preposition. The examples above also illustrate this. The bottle was the original A argument but, with the introduction of *maki*, becomes the O argument of the CAUS. The original O argument’s (the table) new peripheral position is marked with the all-purpose Banawá preposition – *dža*:

Below the informant uses an INTR clause to introduce the AGENT. The CAUS verb references the added argument (*maki*) by gender agreement on the suffix *ri. ka-* can be APPL or COMIT:

‘The man comes with the bottle, he makes the bottle stand on the table.’
Here we have an example of *ka-* functioning as a COMIT prefix. It attaches to the motion verb *ka* to indicate the AGENT (*maki*) is accompanied by the other argument in the clause. By using this structure the ‘dual participant’ meaning is also conveyed.

It also exemplifies the syntactic use of *ka* as it derives a TR from an INTR. A comparison of the two responses above shows that C.P 14 is INTR with the subject being *maki* whilst C.P 20 shows the addition of *ka* makes it a basic TR sentence (what Dixon terms the A-Construction (see section 3.2.4) The A is referenced by gender agreement on the verb.

Below is an example of *ka-* functioning as the marker of dual participants. It seems that by conveying this meaning the A can be omitted as long as it is referenced on the verb using the AC:

```
C.P 9 D  yama  ka-wata-rei  awa-boki-dža
```

‘He puts the thing down on the table.’
4.2 Adjuncts

Refer to section 3.3.1. Vogel states that the ADJ marker can have a wide range of meanings - which is apparent from the data. One common one, especially in the caused position clips, is the meaning ‘on’ or ‘over’:

C.P 21 T

\textit{awa-ini-dža makari wi na}

\texttt{wood.F -stick.F -ADJ cloth.F reside AUX}

‘The cloth is over the branch.’

C.P 36 T

\textit{awa-baki-dža yama fore}

\texttt{wood.F -flooring.F -ADJ thing.F lay.on.F}

‘The thing is lying on the table.’

Below is an example of another meaning associated with the ADJ phrase:

C&B 14 T

\textit{maki meresia wisi na-kosei yimowa-dža}

\texttt{man.M melon.F cut AUX-separate.M knife-ADJ}

‘The man cuts the melon with the knife.’

The ADJ marker is attached to the NP \textit{yimowa}. This gives a reading of ‘with’ which appears most in the cut and break clips because the ADJ phrases describe the
INSTRUMENTAL argument in the states of affairs, such as scissors, knives, axes and hammers. It also occurs with this meaning in some of the staged event clips:

7T Set1 T

\[
\begin{array}{c}
maki \quad yama \quad to-na-mai \quad teme-dža \\
\text{man.M} \quad \text{thing.F} \quad \text{kick MOV.AWAY-AUX-AUX.M} \quad \text{foot-ADJ}
\end{array}
\]

‘The man kicks the thing away with his foot.’

Vogel links thematic roles to the meaning of \(dža\). ‘With’ is connected with the theme relation and the locative meanings with the locational meanings. As shown above, the knife in C&B 14 and the foot in 7T Set 1 occupy the thematic role of THEME and accordingly is translated as ‘with’.

Most of the ADJUNCT examples in the Banawá data have a locational sense (Caused Position clips) or a ‘with’ (INSTRU) sense. I do not have any examples where the NP is animate and \(dža\) is used to give the ‘with’ meaning. Vogel is able to make this distinction between the two due to a difference in form when the NP is animate. \(nίyaa\) (Jarawara) and \(nίdža\) in Banawá are used with animate NP’s to give a locational meaning:

1ET Set2 D

\[
\begin{array}{c}
maki \quad makari \quad idi-ei \\
\text{man.M} \quad \text{cloth.F} \quad \text{pick.up-M}
\end{array}
\]

‘The man picks up the cloth,'
(I glossed to- as ‘movement away’ because it cannot be a 3REF PRON. This is because the cloth is immediately referenced before the verb to- appears on and the man is referenced by gender agreement on the end of the verb. (See section 4.3 below for a discussion about to- and its uses.)

However, there are examples where nidža is attached to a non-animate NP:

121T Set 2 T

\[
\begin{array}{llllll}
maki & yama & taro & to-witi & yuwa-nidža \\
\text{man.M} & \text{thing.F} & \text{kick} & \text{MOV.AWAY-far.point.M} & \text{midway-ADJ} \\
\end{array}
\]

‘The man kicks the thing away to the middle of the furthest point.’

The difference between ni dža and dža makes the distinction obvious on animate NP’s and Vogel states he believes the distinction is the same on non-animate NP’s. (Vogel 2003: 88) My data supports this assumption:

Thematic relation of theme = ‘with’:

C&B 24 T

\[
\begin{array}{llllll}
\text{AGENT} & \text{PAT} & \text{INSTRU} \\
maki & mado & seo & no-kosei & kowari-dža \\
\text{man.M} & \text{vine.F} & \text{cut} & \text{AUX-separate.m} & \text{scissors-ADJ} \\
\end{array}
\]

‘The man cut the vine with the scissors.’
*The man broke the side of the container with his fist.*

Thematic relation of LOCATION = ‘on, at, through, to, under etc’:

*The woman is sitting on top of the chair eating.*

*The ball is on top of the table.*

*The man puts the thing inside of the box.*
4.3.  **to-**

Refer to section 3.3.2

to- can indicate a change of state which could also indicate a change in transitivity. This is supported by the cut and break clips. 19% to-’s total occurrences were in these clips. Below are the ‘break’ verbs, which seem to support the ‘change of state’ meaning associated with to-.

- *baka* – ‘break’ = 8%
- *bete* – ‘yank out, apart’ = 17%
- *duri* – ‘fracture’ = 38%
- *sibi* – ‘rip, tear’ = 13%

These percentages show the distribution of to- with the ‘break’ verbs in the cut and break clips. So 38% of to-’s occurrences in the cut and break clips were with the verb *dori* and when the percentages are added up we see that 76% of to-’s occurrences in the cut and break clips are with ‘break’ verbs. This is strong evidence that it means ‘change state’ because all the clips where to- appears with the above verbs involve changes of state – most of them complete breakages. One informant used to- to describe C&B 11 where a woman separates two cups. Both informants used *awa to-na* (‘yawn’) when describing C&B 52 where a woman opens her mouth, which possibly lends support to the ‘change of state’ meaning.

The absence of to- in both informants’ responses to the caused position clips also supports the meanings posited by Vogel. None of the caused position clips involve a change of state, only a change in location.
However, *to*- does not necessarily occur in clips where there is a change of state – i.e. where we would expect. Neither informant used *to*- in C&B 26, which showed a woman cutting a carrot in half with a knife. Conversely, C&B 15 showed a man doing the same thing to a carrot and *to*- was used. It never occurred in any of the examples with the verb *okoro na* ‘to skin/peel’ even though that is an obvious change of state. Further elicitation is needed to see if *to*- does occur with *okoro na* in an intransitive sense as all my examples were in response to a clip depicting an *agent* who peeled the fruit (the *patient*).

It could be said from this that *to*- is optional. However, I am wary of doing this because of the behaviour of the verb *dori*. It occurred with *ka*- more than it did with *to*-.* dori* occurred 16 times in the cut and break clips – 7 times with *to*- , 9 times with *ka*:-

<table>
<thead>
<tr>
<th>C&amp;B No. &amp; Informant</th>
<th><em>ka</em>-</th>
<th><em>to</em>-</th>
<th>Full Description of Clip</th>
</tr>
</thead>
<tbody>
<tr>
<td>15 T</td>
<td></td>
<td><em>dori to-na</em></td>
<td>man saws branch (held over the gap between 2 tables) in two</td>
</tr>
<tr>
<td>15 D <em>wisi-kasei</em>)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>16 T</td>
<td></td>
<td><em>dori to-na</em></td>
<td>stick spontaneously breaks</td>
</tr>
<tr>
<td>16 D</td>
<td><em>(awa ini ka-foria)</em></td>
<td></td>
<td></td>
</tr>
<tr>
<td>17T</td>
<td></td>
<td><em>dori to-na</em></td>
<td>carrot spontaneously snaps</td>
</tr>
<tr>
<td>17D</td>
<td></td>
<td><em>dori to-na</em></td>
<td></td>
</tr>
</tbody>
</table>

Table 5 Comparison of *to*- and *ka*- with *dori*:
<p>| 25 D | 25 T <em>(baka no-kosa)</em> | <em>dori to-na</em> | woman part snaps twig with hands |
| 31 D | 31 T <em>(baa na-rei)</em> | <em>dori to-na</em> | woman hammers on piece of wood (on a table) it breaks in half |
| 32 D | 32 T <em>(boo na-rei)</em> | <em>dori ka-na</em> | man karate chops carrot in half |
| 34 T | 34 D <em>(bate-ro-kosa)</em> | <em>dori ka-na</em> | woman karate chops cloth in half held between 2 tables |
| 42 T | 42 D | <em>dori ka-na</em> | <em>baka to-na</em> | woman karate chops stick in half (she is holding it upright on a table) |
| 43 D | 43 T | <em>dori ka-na</em> | <em>dori ka-na</em> | man splits carrot in half with the metal point |
| 48 T | 48 D | <em>dori ka-ni</em> | <em>dori to-wa-wa</em>&lt;br&gt; <em>dori to-hi-ni-yura</em> | man chops branch in half with axe on bench. It takes repeated blows. |
| 50 T | | <em>dori ka-na</em> | | man hammers rope |</p>
<table>
<thead>
<tr>
<th></th>
<th>50 D <em>(bete-ro-sowa)</em></th>
<th>(held between 2 tables) in half</th>
</tr>
</thead>
<tbody>
<tr>
<td>53 T</td>
<td>dori <em>ka-ni-kima</em></td>
<td>man splits piece of wood in half with metal point</td>
</tr>
<tr>
<td>53 D <em>(kofo ni-sei)</em></td>
<td></td>
<td></td>
</tr>
<tr>
<td>54 D</td>
<td>dori <em>ka-na</em></td>
<td>man chops carrot in half with axe</td>
</tr>
<tr>
<td>54 T <em>(tii-kasi-kimei)</em></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(Where one informant used a different verb from *dori* I have entered the other’s response in brackets for comparative purposes.)

The previous table shows that *to-* is optional in that the notion of ‘change of state’ can be conveyed with the suffix *kosa* ‘separate’ and its variant forms. (See entries for C&B 15 above) These are attached to a verb of cutting such as *wisi, tii, seo, kaa,* with verbs of breaking like *sibi* and *baka,* or with *bete* ‘yank out, apart’ which seems to co-lexicalise both the action and the breaking. (See Suffix Tables: C&B)

It supports the notion that *to-* conveys a ‘change of state meaning’ but also suggests a similar meaning can be conveyed with *ka-* which is shown by the informants’ responses to C&B 42. It could be posited from this table that *ka-* could morphologically mark the INTR variant of a ‘break’ verb too. (See section 4.4.2 below for discussion of this.)
to may indicate movement away from speaker’. Below is a table showing the total distribution of to- from Set1 (T), Set2 (D&T).

Table 6 Total Distribution of to- in ST-EV:

<table>
<thead>
<tr>
<th>VERB</th>
<th>% of occurrences with to- in Staged Ev.</th>
</tr>
</thead>
<tbody>
<tr>
<td>daa ‘give’</td>
<td>5</td>
</tr>
<tr>
<td>dama ‘hold/carry’</td>
<td>1</td>
</tr>
<tr>
<td>fidža ‘pass’</td>
<td>7</td>
</tr>
<tr>
<td>kidžu ‘go in’</td>
<td>4</td>
</tr>
<tr>
<td>ka ‘movement’</td>
<td>34</td>
</tr>
<tr>
<td>kobo ‘arrive’</td>
<td>5</td>
</tr>
<tr>
<td>koro ‘throw’</td>
<td>12</td>
</tr>
<tr>
<td>maa ‘stop’</td>
<td>2</td>
</tr>
<tr>
<td>saa ‘let go of’</td>
<td>1</td>
</tr>
<tr>
<td>taro ‘kick’</td>
<td>10</td>
</tr>
<tr>
<td>wara ‘grab’</td>
<td>4</td>
</tr>
<tr>
<td>wede ‘return’</td>
<td>3</td>
</tr>
<tr>
<td>yora ‘jump’</td>
<td>1</td>
</tr>
<tr>
<td>yana ‘start’</td>
<td>12</td>
</tr>
</tbody>
</table>

Table 7 shows that to- can mean ‘movement away from the speaker’. This is because the verbs that to- most frequently appears with are:
**daa** never appears without *to-* in the data. This is strong evidence for it meaning ‘movement away’ because the verb co-lexicalises this notion in its semantics. The act of giving in the clips is obviously characterised by movement away from the subject, shown by the subject argument being referenced on the end of the verb. This is also evidence that the meaning of *to-* may not solely mean ‘movement away from the speaker’ but may encode movement away from the **AGENT** of the verb it appears with.

**koro** All of the above is also true for this verb. It never occurs without *to-* because the notion of throwing is characterised by movement away from the subject of the verb.

**taro** All of the above is the same for this verb. It never occurs without *to-* because the notion of kicking is characterised by movement away from the subject of the verb.

**yana** This never occurs without *to-* and was used to describe the car starting in the the car clips. It always drove away from the informants’ perspective. This is evidence for *to-* describing movement away from the speaker as the car could not move away from itself.

*to* can be associated with unaccusativity. **UNACC** verbs are a type of **INTR** verb where the S is not perceived as initiating or being actively responsible for the action of the verb. The verbs above from the staged events clips are not **UNACC** because some of them are not **INTR** (*daa, dama* for example) or because the S of the verb *is* actively
responsible for the action in the clip – which makes them UNERG verbs. It could be debated whether the car is perceived as being actively responsible or not for its actions but unfortunately I could not ascertain the informants’ perceptions about that.

4.4. *ka/-to-* as morphological markers of the intransitive variant of ‘break’ verbs

4.4.1 *to-*

Refer to section 3.3.3. Levin & Rappaport assert externally caused verbs of change are morphologically marked when INTR – to reference the omitted surface argument that is still present in the event structure. My Banawá data is limited but shows the same pattern of using the morpheme *to-* when the ‘break’ verb appeared in an intransitively. Accordingly, Buller’s dictionary has one of the meanings of *to* as PRON, 3REF.

C&B 8 T (no overt agent, spontaneous breakage, therefore expected to be intran)

*makari fure hi-ni-sibi-ka-re*

cloth.F lay on OC-CAUS-tear-COMIT-on.F

‘The cloth was lying, it got torn.’

The example above does not use *to-* but it can still be considered to be morphologically marked because of the presence of *hi-*, which indicates the O-Construction - the marked TR construction.
The examples below further illustrate the use of **to-** in **INTR** breaking clauses:

```

makari  sibi-to-ko-wite

*cloth.*F  tear-CHANGE.STATE-MOT-far.point

‘The cloth completely tears.’

```

C&B 17 T (no overt agent, spontaneous breakage, expected to be intran)

```
yama-hadi  kotee  dori  to-na

*thing.*F-fruit.*F  piece.*F  fracture  CHANGE.STATE-AUX

‘The piece of fruit breaks.’

```

D  yama  soo  na-re  one  einoki  baka  to-na

*thing.*F  lay?  AUX-on other middle break  CHANGE.STATE-AUX

‘The thing is lying down, it breaks.’

```

C&B 15 T (INTR break clause, 3 participants in whole clip – man, wood, saw)

```
maki  awa  wisi  na-kosei

*man.m  wood.*F  cut  AUX-separate.m

‘The man cuts the wood separate,

```

```
awa  kotee  dori  to-na

*wood.*F  piece.*F  fracture  CHANGE.STATE-

the piece of wood breaks.’

```

45
C&B 23 T (intr break clause, 3 participants in clip – man, cloth, hammer)

\[
\text{maki makari tii na-kosei}
\]

man.M cloth.F cut AUX-separate.M

‘The man cuts the cloth separate,

\[
\text{makari dori to-ni-kima}
\]

cloth.F fracture CHANGE.STATE-AUX-both.F

the cloth completely tears.’

Compare these to the ‘break’ verbs when they appear in transitive clauses. There is no 

\text{to-} morpheme present:

C&B 25 T

\[
\text{fana} \quad \text{awa} \quad \text{kotee} \quad \text{baka na-kosa}
\]

woman.F wood.F piece.F break AUX-separate

‘The woman breaks the stick in two.’

However, the function of \text{to-} cannot solely be to morphologically mark \text{intr} variants 
of the alternating ‘break’ verbs. This is because it can also appear in \text{tr} clauses 
(below) in exactly the same form as the \text{intr} version (C&B 8 above):

C&B 36 D

\[
\text{fana} \quad \text{makari} \quad \text{sibi to-kowite}
\]

woman.F cloth.F tear CHANGE.STATE-far.point.F

‘The woman tears the cloth in two,'
**kotee**  **dama** hi-na

piece.F hold OC-AUX.F

the pieces are held. (by her)’

As discussed in section 3.3.2, here *to-* means ‘change of state’.

**4.4.2  ka-**

There are examples where *ka-* is used when *to-* has appeared previously. I have followed Vogel’s general gloss of COMIT for now:

C&B 16  D

| *awa* | *ini* | *ka-foria* |
| wood.F | stick.F | DUAL-lay.on.F |

‘The stick is lying down.’ (I think the informant missed the breakage.)

C&B 34

| *maki* | *makari* | *kotee* | *tee na-kosei* |

‘The man cuts the piece of cloth separate,

| *makari* | *duri* | *ka-na* |
| cloth.F | fracture | COMIT-AUX.F |

the cloth rips.’
The table below shows the results for the cut and break/staged event clips, with the morphemes in the columns and the verbs they occur with. It shows that both morphemes are used with dori, only to- is used with baka, whilst only ka is used with waka. If these morphemes marked the INTR variant forms of ‘break’ verbs, as predicted by Levin & Rappaport, then the morpheme chosen for baka and waka seems to be in complementary distribution:

Table 7  Distribution of ka- and to- with waka, baka, dori:

<table>
<thead>
<tr>
<th>C&amp;B/ST-EV</th>
<th>ka</th>
<th>to</th>
</tr>
</thead>
<tbody>
<tr>
<td>baka</td>
<td>no</td>
<td>yes</td>
</tr>
<tr>
<td>dori</td>
<td>yes</td>
<td>yes</td>
</tr>
<tr>
<td>waka</td>
<td>yes</td>
<td>no</td>
</tr>
</tbody>
</table>

Informant D’s data for the Staged Events Set 2 only contained the verb waka – not baka or dori. As expected, waka only appears with ka. Informant T’s data showed the same – waka was the only verb used and it only appeared with ka.

In fact, throughout the data, waka ‘break’ only occurs with ka. The verb was most used to describe plates breaking (as opposed to dori which was usually used to describe wood or rope breaking), which suggests co-lexicalisation (see section 5.1) of the object being broken (i.e. the theme/patient) and the use of ka.

---

1 As the caused position clips did not involve breaking they are irrelevant for this discussion pertaining to ka-/to- and their functions when marking the intransitive invariants of ‘break’ verbs.
In the Staged Events clips the object broken each time was a plate. It looks like the morpheme *ka* has the same function as *to* when used with the verb *waka*. This is because it seems to mark the **intr** variant of a ‘break’ verb, as predicted by Levin and Rappaport.

Much of the data for *waka* shows it appearing in a ‘cause and result form’. By that I mean constructions that translate as ‘The man picked up the hammer, he let go of it, the plate broke’ as opposed to ‘The man broke the plate’. Therefore many of my examples are of the **intr** variant of *waka*, with *waka ka-na* being the usual form for the verb after the S argument of this ‘resultative’ **intr** clause has been introduced.

The following examples illustrate this and I have traced the grammatical roles of the **agent** and the **patient** (the thing that is broken) in the example:

Set 2 Staged Events 18P D

<table>
<thead>
<tr>
<th>A</th>
<th>O</th>
<th>S</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>fana</em></td>
<td><em>yama</em></td>
<td><em>baa na-re</em></td>
</tr>
<tr>
<td>woman.F</td>
<td>thing.F</td>
<td>beat AUX-on.F</td>
</tr>
</tbody>
</table>

‘The woman hits the thing, the thing breaks.’
Often there is no preverbal NP (the original O argument) specified in the same INTR, ‘resultative’ clause and \textit{waka ka-na} appears alone:

\textbf{058P D}

\begin{center}
\begin{tabular}{llll}
A & O \\
\hline
\textit{fana} & \textit{yamawidžei} & \textit{kuro na-re} \\
woman.F & container.F & throw AUX-on.F \\
\end{tabular}
\end{center}

‘The woman throws the pot,

\textbf{S}

\begin{center}
\begin{tabular}{llll}
\textit{awa-boki-dža} & \textit{nafi} & \textit{waka ka-na} & \textit{aaba} \\
wood.F-flooring.F-ADJ & all & break COMIT-AUX.F & spoil.F \\
\end{tabular}
\end{center}

onto the table, it all breaks up.’

\textbf{C&B 39 T}

\begin{center}
\begin{tabular}{lll}
\textit{fana} & \textit{matera} & \textit{idia} \\
woman.F & hammer.F & pick.up.F \\
\end{tabular}
\end{center}

‘The woman picks up the hammer,

\textbf{O A S}

\begin{center}
\begin{tabular}{llll}
\textit{jamawidžei} & \textit{baa na-re} & \textit{waka ka-na} \\
container.F & beat AUX-RAIS.SURF.F & break -AUX.F \\
\end{tabular}
\end{center}

she hits the pot, it breaks.’
Staged Events Set1 144P T

A O

maki barato baa na-re

man.M plate.F beat AUX-RAISED.SURFACE.M

‘The man beats the plate

yowa-rei ne-mese-dža yei

midway-RAISED.SURFACE.M NOM.AUX-top.M-ADJ hand.M

on top of the middle of the table with his hand

S

koro na-re barato waka ka-na

throw AUX-RAIS.SURF.M plate.F break - AUX.F

the plate breaks.’

In the first clause in the examples above, the O undergoes the action from the A argument. The breakage of the plate is expressed in an INTR clause so the break verb agrees with the S of this clause – which was the former O argument.

Although both arguments are feminine gender waka ka-na agrees with the plate.¹ This is demonstrated above (144P – T), where the AGENT is masculine gender and the form of waka is still feminine - which agrees with the plate. If it agreed with maki we would expect waka ka-nei.

¹ It is unfortunate that most of the clips involve a woman breaking a plate, both of which are feminine gender in Banawá. This means the indexation patterns are less obvious than when the two participants are different genders.
4.4.3 *ka*- as marker of the middle voice

Refer to section 3.2.3.

Following Dixon’s analysis of *ka-, we can see how the semantic uses of *ka- cannot apply because the plate is not full, inside or accompanied by something, nor does it have dual number. We deduce that *ka- must therefore be functioning in the APPL sense. The problem is that I do not have a sentence with a peripheral NP to compare it with as Dixon does (2004: 255).

Nor does the use of *ka- with *waka here seem to correlate with the function of *ka- discussed in section 3.2.3 because it does not derive a TR from INTR. It appears intransitively, which is a tentative analysis because I am assuming that *waka ka-na agrees in gender each time with the plate. This is because in the one example I have where the agent is masculine *waka is feminine so it still agrees with the plate. It is expected that in the rest of the constructions where both agent and patient are feminine that the agreement pattern is with the plate.

The use of *ka- with *waka in the Banawá data did not seem to correlate with the use of *ka- discussed by Dixon and Vogel. The Max Planck tests showed *waka should anti-causativise, which would entail the other main ‘break’ verb *dori should too.

Payne discusses anti-causatives with the middle voice constructions, which involve detransitivisation. I propose the use of *ka- with *waka fits these criteria better than the criteria discussed above. ‘A middle construction…expresses a semantically transitive situation in terms of a process undergone by a PATIENT, rather than an action carried out by an AGENT.’ (1997: 216) This is true for all the clauses *waka occurs in. The
informants always specify the AGENT/INSTRUMENT and the action with a verb of contact. Then they specify the breakage of the plate as a result of this using INTR.

Payne then focuses on how the verb ‘break’ is a standard TR verb when used transitively, which is true of waka. When used intransitively the PATIENT, not the AGENT is the subject and ‘break’ is therefore an UNACC verb. The situation is then expressed as a process rather than an action because the middle construction ignores the role of the AGENT. This again links to the usage of waka ka-na. When the sentences are compared it could be analysed that the role of the AGENT is only ignored in the final ‘break’ clause because the informant has already specified the AGENT’s actions previously.

Payne notes that middle voice constructions are often overtly morphologically marked, which would account for the consistent presence of ka-. They are also often called anti-causatives because they are the opposite from causative constructions (1997: 218). This is because they start with a CAUS verb and convert it to a non-CAUS verb through the morphology.

The verb waka never appears with CAUS na-, but it means ‘break’ and therefore we can assume there is a notion of CAUS in its lexical entry. (This is supported by the fact it is UNACC. By that definition the S of its intransitive use is not responsible for the action of the verb.) The morpheme subtracts the notion of CAUS from the verb and therefore gives a translation of ‘It broke’. I propose this could be a function of ka- with the verb waka and if so, we would expect it to have the same function with the other ‘break’ verb – dori.
4.5 **Suffixes**

4.5.1 **ri**

Refer to section 3.2.5 (Dixon)

The meaning of *-ri* can change depending on the type of verb it occurs with. Dixon asserts that with verbs of stance it means on a raised surface (not on the ground) and describes someone/something sitting, standing or lying on a log or bench for example.

The suffix tables (see appendix) show that *-ri* occurred most in the caused position clips. This is expected as most of them involved a table – a raised surface. 24% of *-ri*s total occurrences were with the stance verb *ita* ‘sit’. This was therefore the verb *-ri* occurred most with. There were some caused position clips (13, 16, 23, 24, 41, 46) that showed people placing objects on the ground, which is not a raised surface. As predicted, *-ri* does not occur.

*-ri* occurs second most (21%) with the verb of effect *baa*. When used with verbs of effect, Dixon states it refers to the edge of the object.

4.5.2 **-ma**

The Banawá general motion verb that appears in the data is *ka* - which does not need a directional suffix to convey the notion of direction. As shown in the suffix tables (Appendix) it only occurs with *-ma* and *ka* - (COMIT)

As the motion constructions such as *maki kamai* occurred without a goal phrase they could be said to be atelic but the actual motion they describe in the clips is telic
because the agent always completes the movement. It could therefore be posited that -ma encodes telicity.

The motion verb ka was often used to introduce the agent of a clip and was sometimes used with ka- (COMIT) to introduce both agent and patient simultaneously. The suffix -ma was always used with the motion verb ka – 42% of all the occurrences of –ma were with this motion verb. (See suffix tables) The verb it occurred second most with was maa ‘stop’ – usually to describe the actions of the car. This supports Dixon’s notion of ‘return’ so far as sometimes the car came back to its original starting position. However, -ma also occurred with maa when the car had stopped well away from its starting position.

23% of the total occurrences of the suffix occurred in the caused position clips and after ka- the verb it occurred with most was na-wa (CAUS-stand):

C.P14. T

\[
\begin{array}{llll}
\text{maki} & \text{ka-mai} & \text{karafa-hodi} & \text{na-wa-riei} \\
\text{man.M} & \text{MOT-ADV.M} & \text{bottle.f-?} & \text{CAUS-stand-on.M} \\
\end{array}
\]

‘The man comes, he stands the bottle

\textit{ne-mesa-mase-dža}

NOM.AUX-table-top.F-ADJ

on top of the table.’
C.P 16  T & D

*fanā*  *karāfa*  *dama na*

woman.\(F\)  bottle.\(F\)  hold AUX

‘The woman holds the bottle,

*karāfa*  *na-wa-ma*  *awa-mate-dža*

bottle  CAUS-stand-ADV.\(F\)  wood.f-stump.f-ADJ

she stands it against the tree trunk.’

Dixon (see section 3.2.5) glosses *ma-* as ‘back, return’ and *ka-ma/i* as ‘go back/return (Dixon 2004: 149-150) but that meaning is hard to reconcile with the Banawá data. *ka-ma/i* always introduces the AGENT and the clips do not depict the man or woman returning or going back on themselves at the start of the clip – when *ma-* is used. Furthermore, when the AGENT is depicted as leaving the scene, the informants did not use *ka-ma/i* to express them leaving the scene, which is what we would expect from Dixon’s assessment of *ma-*.

---

\(^1\) This is a good example of how the informants sometimes mistook the participants in the clip for the other sex. It proved useful for comparison because of the contrast in gender indexation on the verb. It was also useful as it made us both laugh and therefore gave us a common ground which could have been harder to reach with solely language due to my lack of fluency in Banawá and Portuguese.
4.5.3 Directional Suffixes

Refer to section 3.3.3 (Vogel)

Some of the Banawá definitions below are different from Vogel’s glossing. I have used the Buller’s dictionary definitions. In the following discussion refer to the affix table booklet.

**wite** is a directional suffix because it usually co-occurs with *to-* and no other suffixes. By Vogel’s reasoning, **kasa** and **kima** are not directional suffixes because they never occur with *to-* and usually occur together. **ri** and **ma** are also not directional suffixes as they co-occur frequently but never with *to-*. The suffixes **misa**, **nisa** and **risa** cannot be directional according to Vogel’s criteria because they never occur with *to-* but semantically they do convey the notion of direction because they mean ‘up’, ‘down’ and ‘down’ respectively according to Buller.

The suffix **ri** is a very common throughout the data. (See section 4.5.1 above) Vogel classes it as a derivational suffix meaning ‘lie on a raised surface’. Many of the caused position clips involved objects being placed on a table, which supports Vogel’s analysis. Most of the caused position responses involved an **ADJ** phrase after them such as **nemesamasedža** or **awabokidža** which specify the raised surface.
Banawá behaves the same as Jarawara and English when directional suffixes are added to verbs of spatial configuration in that the notion of telicity can be conveyed:

Maintain position (atelic):

ST-EV Set1 124ET T

\[
\begin{array}{c}
\text{maki} & \text{itei} \\
\text{man.M} & \text{sit.M}
\end{array}
\]

‘The man is sitting.’

Assume Position Only (telic):

ST-EV Set1 79ET T

\[
\begin{array}{ccc}
\text{maki} & \text{wai} & \text{yaka ni} \\
\text{man.M} & \text{stand.M} & \text{walk AUX.M}
\end{array}
\]

‘The man stands, he walks,

\[
\begin{array}{ccc}
\text{ka-mai} & \text{ita-risei} & \text{kadira-dža} \\
\text{MOV-ADV.M} & \text{sit-down.M} & \text{chair -ADJ}
\end{array}
\]

he comes, he sits down on the chair.’
4.5.4 Examples of Banawá Suffixes

Refer to section 3.4.4 - the suffixes discussed are underlined:

ST-EV 120ET D

\begin{aligned}
maki & \quad \text{teme-dža} & \quad yama & \quad \text{idi-ei} \\
\text{man.M} & \quad \text{foot-ADJ} & \quad \text{thing.F} & \quad \text{pick.up.M}
\end{aligned}

‘The man picks the thing up with his foot,'

\begin{aligned}
daa & \quad \text{hi-na-ma} & \quad \text{fana-nidža} \\
give & \quad \text{OC-AUX-ADV.F} & \quad \text{woman.F-ADJ}
\end{aligned}

it gets given to the woman,

\begin{aligned}
fana & \quad \text{teme-dža} & \quad \text{wora-hi-bisa} \\
\text{woman.F} & \quad \text{foot-ADJ} & \quad \text{grab-OC-also}
\end{aligned}

the woman also grabs it with her foot,

\begin{aligned}
sawi-nisa & \quad \text{fana} & \quad \text{teme-dža} \\
\text{stay-down.F} & \quad \text{woman.F} & \quad \text{foot-ADJ}
\end{aligned}

it stays on the woman’s foot.’
ST-EV Set 2 21T T

\[
\begin{array}{cccc}
\text{fana} & \text{bora} & \text{kuro} & \text{to-na-ma} \\
\text{woman.F} & \text{ball.F} & \text{throw} & \text{MOV.AWAY-AUX-ADV.F}
\end{array}
\]

‘The woman throws the ball

\[
\begin{array}{cccc}
\text{maki-nidža} & \text{maki} & \text{bora} & \text{wora-to-misei} \\
\text{man.M-ADJ} & \text{man.m} & \text{ball.F} & \text{grab.up-MOV.AWAY-up.M}
\end{array}
\]

to the man, the man grabs the ball up.’

C&B 23 T

\[
\begin{array}{cccc}
\text{maki} & \text{makari} & \text{tee} & \text{na-kosei} \\
\text{man.M} & \text{cloth.F} & \text{cut} & \text{AUX-separate}
\end{array}
\]

‘The man cuts the cloth separate,

\[
\begin{array}{cccc}
\text{makari} & \text{duri} & \text{to-ni-kima} \\
\text{cloth.F} & \text{tear} & \text{CHANGE.STATE-AUX-both.F}
\end{array}
\]

the cloth tears in two.’

Bullers’ glosses for the suffixes and supporting evidence (see affix tables) is as follows:

\[
\begin{array}{l}
\text{bisa} \quad \text{‘also’} \quad - \text{frequently has uwa ‘other’ as preverbal NP}
\text{kasa} \quad \text{‘separate’} \quad - \text{only occurred in C&B and then only with ‘cut’ verbs.}
\end{array}
\]
It occurred when the clip did not depict complete separation (C&B 18 D), which could mean it conveys the general notion of separation (both partial and complete) as opposed to solely complete separation. The fact that there is no distinction between the morphology of the part-cut clips and the complete separation clips and the former point shows more tests are needed in order to determine better the kind of separation kasa encodes. Buller glosses the suffixes kasa, kosa, and kosei as ‘separate, separate, separate.’ respectively.

Dixon glosses kosa/kosei as a different suffix meaning the result is achieved cleanly, in a single action. This does fit the Banawá data – see C&B 23 above. He glosses kasa as ‘a lot at once’ which indicates the S or O NP has multiple reference with the action involving these all at the same time, for example cutting lots of trees down at once. (2004: 147)This particular meaning does not fit the Banawá data because the cut and break clips did not depict multiple objects being cut at once. Buller’s gloss of ‘separate’ does.

Sometimes one informant used kosa and the other used kasa to describe the same clip - C&B 15, 19, 24 for example. These clips depicted complete separation done cleanly in one action. Therefore, Dixon and Buller’s meanings seem to apply to both forms – kosa/kasa in Banawá. There is a tendency to pronounce the kasa morpheme as kosa/ei when the AUX verb co-occurs with it. This could perhaps relate to or explain the distribution of kosa/kasa.
*kima* ‘both’ frequently co-occurs with *dama* ‘hold’ in reference to the pieces of the object the agent has cut. *kasa* ‘separate’ tends to occur in the previous main clause. This could mean its meaning is ‘in two’ when it occurs with *kasa*. *nisa* occurred most with *saa* ‘let go of’ (see Appendix Caused Positions 31, 32.) *wite*- seems to convey completion as in *sibi-to-wite* ‘it tears to the far point’ i.e completely.

Buller states that some of the suffixes can replace the auxiliary (‘Pred. Struc. In B’)
The ones which appear in my data are:

\[
\text{nisa \, bisa \, kasa \, misa \, witia}
\]

The auxiliary verb is often omitted in the data when *kasa* appears and it is often with the verb *wisi* that this happened. It was so prevalent I first thought the AUX verb was optional with the verb *wisi*. Even this pattern is entirely optional because sometimes *wisi*, AUX and *kasa* all appeared together:

C&B12 both informants used *wisi-hi-kasa*
C&B15 T *wisi na-kosei*
D *wisi-kasei*
4.6 Impersonal passives

I do not have any examples of the customary passive because the nature of the stimuli used meant customary activities could not be and were not depicted. I do have examples of what Buller terms the ‘impersonal passive with pronominal to-, with an unknown agent (or supernatural forces)’. All the examples he uses are similar to Vogel’s intransitive variants of the ‘break’ verbs discussed in section 3.3.2. They also correspond to the spontaneous breakage clips where there is no known agent:

Buller:  
\textit{mado bete to-sa}  
\footnotesize{vine.F yank.out,apart 3REF-PUNCT.F}  
‘The cord got broken.’

C&B 16 T  
\textit{awa ini dori to-na}  
\footnotesize{wood.F stick.F fracture 3REF-AUX.F}  
‘The stick got broken.’ (Following Buller’s analysis.)

to- appears in clips which do have a known agent. This again shows how to- has multiple meanings – according to Buller it denotes the impersonal passive, which is similar to Vogel’s intransitive variants on ‘break’ verbs. It can also be analysed as denoting a change of state. Buller states it can also refer to ‘an agent pronoun included, or known from context.’ (Buller 2-23-94: 3) My data supports all of the above.
Refer to section 3.4.2

I seem to have examples resembling the passive signalled by gender agreement alone. However, he says it occurs only when a person prefix has superceded the only allowable position for *hi-.* There is no person prefix in the sentence below. The clip showed a man putting something into a box on the table. The *AGENT* has been completely omitted and the syntax of the clause has changed, with the adjunct appearing pre-verbally.

C.P 7 D  
\[
yamawidže-dža \quad yama \quad ibe-risa
\]
container.F-ADJ  thing.F  put-down.F

‘The thing is put down in the box.’

It looks like the verb agrees with the gender of *yama.* If the *AGENT* had already been introduced then this would be an acceptable construction – it appears regularly throughout the data, which is shown below:

C.P 1 T  
\[
maki \quad makari \quad idi-ei
\]
man.M  cloth.F  pick.up.M

‘The man picks the cloth up,

\[
ne-mesa-mase-dža \quad makari \quad iba-riei
\]
NOM.AUX-table-top.M-ADJ  cloth.F  put-on.M

he puts it down on the table.’
In the second clause we see exactly the same type construction as C.P 7, but only because the agent has been introduced and can be referenced by gender agreement on the verb.

Similarly, the same thing seems to be occurring here with the verb *saa* because the agent has been omitted from the spontaneous C.P clip. I expected the informant to use a positional verb like *ita* but they both used *saa*. I do not know what the prefix *ba-* means and there is no Jarawara data available. If *ba-* has superceded the position of *hi-* then this could be an example of the passive by gender agreement:

C.P 32 T  
*bora*  *ba-saa-nisa*  *awa*  *fanafati*

ball.F  ?-let.go.of-down.F  wood.F  space.F

‘The ball got put down into the fork in the tree.’

D  
*bora*  *yama*  *taro*  *na*  *ba-saa-nisa*  *awa-fanafati-dža*

ball.F  thing.F  kick  AUX  ?-let.go.of-down.F  wood-space-ADJ

‘The ball got put down into the fork in the tree.’

The verb forms are given below. *(A = agent, P = patient with gender indicated as informant interpreted it, LOC = adjunct phrase indicating new location of patient, PORT = Portuguese word.)*

C.P 4  

C.P 13  
*na – wa – risa*  A,F  P,F  LOC

*na – wai*  A,M  P,F  LOC

C.P 14  
*na – wa – riei*  A,M  P,F  LOC

*na – wa – riei*  A,M  P,F
<table>
<thead>
<tr>
<th>C.P</th>
<th>Example</th>
<th>Gender</th>
<th>Location</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>15</td>
<td><code>na – wata – rei</code></td>
<td>A,M</td>
<td>P,PORT LOC</td>
<td></td>
</tr>
<tr>
<td>16</td>
<td><code>na – wa – ma</code></td>
<td>A,F</td>
<td>P,F LOC</td>
<td></td>
</tr>
<tr>
<td></td>
<td><code>na – wa – mai</code></td>
<td>A,M</td>
<td>P,F LOC</td>
<td></td>
</tr>
<tr>
<td>17</td>
<td><code>na – wata – rei</code></td>
<td>A,M</td>
<td>P,PORT LOC</td>
<td></td>
</tr>
<tr>
<td>20</td>
<td><code>na – wa – riei</code></td>
<td>A,M</td>
<td>P,F LOC</td>
<td></td>
</tr>
<tr>
<td></td>
<td><code>na – wa – riei</code></td>
<td>A,M</td>
<td>P,F LOC</td>
<td></td>
</tr>
<tr>
<td>23</td>
<td><code>na – wa – ma</code></td>
<td>A,F</td>
<td>P,F LOC</td>
<td></td>
</tr>
<tr>
<td></td>
<td><code>na – wa – rei</code></td>
<td>A,M</td>
<td>P,F LOC</td>
<td></td>
</tr>
<tr>
<td>29</td>
<td><code>na – wi – rei</code></td>
<td>A,M</td>
<td>P,F LOC</td>
<td></td>
</tr>
<tr>
<td>33</td>
<td><code>na – wa – ri – mei</code></td>
<td>A,M</td>
<td>P,F LOC</td>
<td></td>
</tr>
<tr>
<td></td>
<td><code>na – wa – riei</code></td>
<td>A,M</td>
<td>P,F LOC</td>
<td></td>
</tr>
<tr>
<td></td>
<td><code>na – wa – ri – mei</code></td>
<td>A,M</td>
<td>P,F LOC</td>
<td></td>
</tr>
<tr>
<td>36</td>
<td><code>na – wa – ri – mei</code></td>
<td>A,M</td>
<td>P,F LOC</td>
<td></td>
</tr>
<tr>
<td></td>
<td><code>na – wata – rei</code></td>
<td>A,M</td>
<td>P,F LOC</td>
<td></td>
</tr>
<tr>
<td>41</td>
<td><code>na – wa – ma</code></td>
<td>A,F</td>
<td>P,F</td>
<td></td>
</tr>
<tr>
<td>43</td>
<td><code>na – wa – riei</code></td>
<td>A,M</td>
<td>P,F LOC</td>
<td></td>
</tr>
<tr>
<td>45</td>
<td><code>na – wata – rei</code></td>
<td>A,M</td>
<td>P,F</td>
<td></td>
</tr>
</tbody>
</table>

These examples show the causative verb always agrees in gender with the agent. This is expected as the clips denote states of affairs caused by prototypically agentive participants.

14 of the responses contained the suffix `ri` ‘on a raised surface’. That could lead us to hypothesise that `ri` could license the presence of the locational ADJ. If that were true `ri`
and the LOC phrase could only occur together. However, C.P 45 and C.P 14 show this isn’t the case. In fact, C.P 14 (below) shows the presence of the LOC phrase is entirely optional.

C.P14 T

<table>
<thead>
<tr>
<th>maki</th>
<th>ka-mai</th>
<th>karafa-hodi</th>
<th>na-wa-riei</th>
</tr>
</thead>
<tbody>
<tr>
<td>man.M</td>
<td>come-ADV.M</td>
<td>bottle.F</td>
<td>CAUS-stand-on.M</td>
</tr>
</tbody>
</table>

‘The man comes, he stands the bottle

ne-mesa-mase-dža

NOM.AUX.M-table-top.F-ADJ

on top of the table.’

D

<table>
<thead>
<tr>
<th>maki</th>
<th>karahodi</th>
<th>na-wa-riei</th>
</tr>
</thead>
</table>

‘The man makes the bottle stand (up).’

Therefore, the locational phrase cannot be subcategorised by the verbs wa/wata because it does not always appear with them.
Analysis Based on Max Planck Objectives

5.1 Cut and Break

Refer to section 2.1. The manual suggested the following table in order to determine verbal co-lexicalisation properties.

Table 8 Max Planck Verbal Co-Lexicalisation:

<table>
<thead>
<tr>
<th></th>
<th>PIECE OF CLOTH</th>
<th>STICK</th>
<th>ROPE/STRING</th>
<th>CARROT</th>
</tr>
</thead>
<tbody>
<tr>
<td>WITH HANDS</td>
<td>01 sibi</td>
<td>19 baa</td>
<td>38 bete</td>
<td>57 baka</td>
</tr>
<tr>
<td>WITH KNIFE</td>
<td>12 wisi</td>
<td>20 wisi</td>
<td>49 wisi</td>
<td>09/26 wisi</td>
</tr>
<tr>
<td>WITH HAMMER</td>
<td>23 tii</td>
<td>31 baa</td>
<td>50 baa</td>
<td>21 baa</td>
</tr>
<tr>
<td>KARATE STYLE</td>
<td>34 tii</td>
<td>42 baa</td>
<td>61 baa</td>
<td>32 boo</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>baa</td>
</tr>
<tr>
<td>WITH POINTY TOOL</td>
<td>45 kosi</td>
<td>53 koho</td>
<td>02 kafo</td>
<td>43 dori</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>dori</td>
</tr>
<tr>
<td>FURIOUSLY</td>
<td>04 tii</td>
<td>05 baa</td>
<td>35 huro</td>
<td>06 tii</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>kato</td>
</tr>
<tr>
<td>SPONTANEOUSLY</td>
<td>08 sibi</td>
<td>16 dori</td>
<td>46 baa</td>
<td>17 dori</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>baka</td>
</tr>
</tbody>
</table>

Where there is one verb in the box it means both informants used the same verb, and where they used different verbs, I have specified which verb they used. When a verb appears across a row then it shows that verb co-lexicalises the instrument or manner.
of action. If a verb appears down a column it shows that verb co-lexicalises the object broken and/or the manner of breaking.

Using this criteria these verbs co-lexicalise the following:

\[
\begin{align*}
\text{wisi} & \rightarrow \text{instrument knife} \\
\text{baa} & \rightarrow \text{action beat}
\end{align*}
\]

If a verb appears in two rows it cannot co-lexicalise a single instrument therefore the manner of action that is shared by the two types is what is co-lexicalised. This is shown with \textit{baa} and it is easy to see how the manner of action is related between beating with hands and beating with a hammer.

However, this table does not include a column for the plate as many plate breaking clips occurred in the Staged Event clips. The verb \textit{waka} only appeared when describing the breaking of a plate, regardless of what instrument caused the breakage. (See section 4.4). Similarly, the verb \textit{seho} only occurred when the clips contained scissors. If a verb co-lexicalises an object then by extension it can also specify the manner of breaking. This means \textit{waka} could co-lexicalise the manner of breaking – i.e a rigid object shattering. Therefore:

\[
\begin{align*}
\text{waka} & \rightarrow \text{object plate} = \text{rigid object/shatter?} \\
\text{seho} & \rightarrow \text{instrument scissors}
\end{align*}
\]

When a machete, saw or axe were used in the clips then informant T tended to use \textit{tii} and informant D tended to use \textit{kaa}. They cannot co-lexicalize the instrument if their distribution occurs across different instrument types so I expect them to co-lexicalize
the manner of action – cutting/chopping. More elicitation is needed to ascertain this properly because this data is limited. It also seems to be partly informant specific so different informants’ responses are needed.

The hypothesis regarding the verbs’ co-lexicalisation properties can be tested by seeing if it conforms to the hypothesis discussed in section 2.1.1. The expected properties of the verbs following the above analysis are:

- **wisi** → instrument - UNERG or TR that anti-passivise
- **baa** → action - UNERG or TR that anti-passivise
- **seho** → instrument - UNERG or TR that anti-passivise
- **waka** → object - UNACC or TR that anti-causativise

As the top three verbs are TR they cannot be UNERG because UNERG are a type of INTR verb. They should therefore anti-passivize. However, I was not able to elicit passives due to my lack of proficiency in Portuguese so unfortunately I do not have data for this.

**waka** is expected to be associated with unaccusativity, which means it is not perceived as being actively responsible for the action of the verb - like *duri*. It can also appear transitively and therefore should anti-causativize. (See section 4.4.2 for discussion)

Recall that Vogel associated the morpheme *to-* with UNACC too. (See section 3.3.2)

The manual asserts that cutting and breaking should be expressed transitively and it is true that Banawá displays this preference.
5.2 Caused Positions

Refer to section 2.1.2 The clips which were designed to elicit the ‘static locative’ verbs did not have an agent initiating the position of the object. The table below shows the verbs used to describe this:

Table 9 Max Planck C.P Stative Locational Verbs

<table>
<thead>
<tr>
<th>C.P No.</th>
<th>Informant T</th>
<th>Informant D</th>
</tr>
</thead>
<tbody>
<tr>
<td>02</td>
<td><em>wana</em> ‘fixed to’</td>
<td><em>wada</em> ‘be/exist’</td>
</tr>
<tr>
<td>03</td>
<td><em>ita</em> ‘sit’</td>
<td><em>fore</em> ‘lie on’</td>
</tr>
<tr>
<td>06</td>
<td><em>ita</em> ‘sit’</td>
<td><em>ita</em> ‘sit’</td>
</tr>
<tr>
<td>11</td>
<td><em>ita</em> ‘sit’</td>
<td><em>ita</em> ‘sit’</td>
</tr>
<tr>
<td>18</td>
<td><em>ita</em> ‘sit’</td>
<td><em>ita</em> ‘sit’</td>
</tr>
<tr>
<td>21</td>
<td><em>wina</em> ‘reside’</td>
<td><em>fore</em> ‘lie on’</td>
</tr>
<tr>
<td>22</td>
<td><em>fore</em> ‘lie on’</td>
<td><em>wada</em> ‘be/exist’</td>
</tr>
<tr>
<td>25</td>
<td><em>ware</em> ‘sits/exists’</td>
<td><em>ware</em> ‘sits/exists’</td>
</tr>
<tr>
<td>32</td>
<td><em>saa</em> ‘let go of’</td>
<td><em>saa</em> ‘let go of’</td>
</tr>
<tr>
<td>34</td>
<td><em>ware</em> ‘sits/exists’</td>
<td><em>ware</em> ‘sits/exists’</td>
</tr>
<tr>
<td>35</td>
<td><em>homa</em> ‘lay down’</td>
<td><em>fore</em> ‘lie on’</td>
</tr>
<tr>
<td>40</td>
<td><em>ita</em> ‘sit’</td>
<td><em>ita</em> ‘sit’</td>
</tr>
<tr>
<td>42</td>
<td><em>fore</em> ‘lie on’</td>
<td><em>fore</em> ‘lie on’</td>
</tr>
<tr>
<td>44</td>
<td><em>homa</em> ‘lay down’</td>
<td><em>fore</em> ‘lie on’</td>
</tr>
</tbody>
</table>

None of these verbs (apart from 1 instance of *fore* see below C.P 19) occur in the causative clips where there is an overt agent so it seems as if Banawá positional verbs are not used in CAUS constructions.
The verb *ware* is defined by Buller as ‘sits/exists’. However, this could also be glossed as *wa-re* ‘stand-on a raised surface.’ If this is so then the verb *wa* commonly occurs in *caus* constructions where there is an overt agent. We know that *wa-* is the root because it can occur alone or with *risa* –C.P 13, with -ri or -ma or both – C.P 23/33. If this is the case, then Banawá can use positional verbs *fore* and *wa* in the stative locative clips, as well as the caused position clips.

The use of *saa* in the table above (C.P 32) is interesting because both responses do not include the *AGENT* and therefore the construction seems to resemble Buller’s passive by gender agreement alone – see section 3.4.2 & 4.6.

The non-canonical positions were not expressed (see section 6.1.3) and the all-purpose *ADJ* *dža* was used to express the topological relations such as:

- *awa-fanafati-dža* = ‘forked between’
  
  wood.F-space.F-ADJ

- *yamawidža duri-dža* = ‘containment’
  
  container.F inside-ADJ
5.3 Staged Events

Below is a summary of the verbs and constructions used to describe the aspect the clips of each type depicted. These clips were not analysed as much as the other sets but the following patterns emerged. (See section 2.1.3

B Ball scenes had the verbs *koro* 'throw', *taro* ‘kick’ and informant D seemed to use *yama taro na* where T used *bora*. Sometimes the part of the body that carried out the action was not assumed – it was overtly mentioned. For example, *teme-dža* was sometimes used with *taro* even though in English it is not usually specified because the verb ‘kick’ has that notion in its semantics.

C Car scenes had the verb *yana* ‘start’ which is always in the form *yana to-ka* It is usually followed by verb of motion such as *ka*, the form is then usually *to-wa-ka-ma*. If *yubi* ‘wander’ is used then the form is *yubi ka-na*. *kidza* and *fidza* were also used as the verbs of motion. *maa ka-na-ma* us the usual form to express the car stopping. The order of these elements is consistent across the clips results.

P In the plate scenes the verb *waka* is always used to describe the breakage of the plate (see section 5.1)

T In the transfer scenes the verb *daa* ‘give’ is usually in the form of *daa to-na-ma*. *dama* ‘hold/carry’ is also used.
The meanings of Banawá morphosyntax were found to correspond with both Dixon and Vogel’s findings. They have both semantic functions and syntactical applications. For example, -na functions as a CAUS morpheme because it formed a TR clause from an INTR clause. It did not appear in other clips. The gender agreement in CAUS constructions always indexed the agent, which was expected as CAUS constructions are prototypically agentive and expressed transitively.

*to-* functions as predicted by Vogel to mark the INTR variant of ‘break’ verbs, to mean ‘change state’ and, as Buller stated, it denotes the ‘impersonal passive.’ Buller stated the impersonal passive is formed with *to-* and has an unknown agent as the instigator of the action. This are the equivalent of the INTR ‘break’ verb constructions and were used in the ‘spontaneous’ breakage clips. *to-* indicates a change of state because it was absent from all the caused position clips. They involved a change of location, not state. The literature discussed how *to-* means ‘movement away from the speaker’. This was clearly supported by the Banawá data, and the elicited responses further suggested that it encodes movement away from the agent of the verb it appears with.

*ka-* functions as predicted by Dixon as a COMIT/APPL morpheme. Like *na-* its syntactic function is to form a TR clause from an INTR clause. *ka-* was found to fill most of the criteria for the middle voice construction discussed by Payne. It was also found to mark a clause with dual participants. It was further argued that *ka-* could be a marker of the middle voice when it appeared in a clause where it had none of syntactic functions or semantic meanings previously discussed.
There was a preference for using *to-* with *baka, ka-* with *waka* whilst *duri* licensed the use of either morpheme. *to-* and *ka-* have similar functions whatever verb they appear with. Syntactically, they both derive TR from INTR. They also both mark an externally caused verb of change as INTR, as predicted by Levin & Rappaport. (The OC is also morphologically marked for this, by the presence of *hi-*).

Various post-verbal suffixes appeared throughout the data that conveyed semantic notions. The derivational suffix *ri-* means ‘lie on a raised surface’ and often co-occurred with an adjunct specifying the raised surface – usually the table.

It was found that when the suffix *kasa/ei* ‘separate’ was used, *to-* did not appear and neither did the AUX V *na-*. This was especially true when the verb *wisi* was used. Vogel stated that because they didn’t occur with the morpheme *to-* and often co-occurred they were not directional suffixes. These also include *misa* ‘up’ and *nisa/risa* ‘down’. However, some of these suffixes do encode direction semantically and, when attached to verbs of spatial configuration, encoded telicity, just like English and Jarawara. The meanings for *kasa/kima* ‘separate/both’ need further investigation as there was no difference in morphology when describing a complete or partial separation. They never appear with *to-* and are therefore not directional suffixes. Dixon’s gloss of *kasa/kima* is that the result of the action is completed cleanly, in one go. This fits the data but Dixon further states *kasa* means there are multiple S or O referents. This meaning cannot be true for the Banawá data as there were never multiple referents. It therefore seems that the best gloss is ‘separate’. It was noted that the phonetic realisation of *kasa/ei* tended to change to *kosa/ei* when the AUX V was used.
-ma seems to function as predicted by Dixon to mean ‘back/return’ in the Staged Events clips but appears with ka- (MOT verb) consistently where there is no notion of ‘back/return’ depicted. This suggests it has other meanings, especially as it appears with a verb that has the notion of movement in its verbal semantics. It occurred most with the verbs ka ‘come/go’ and maa ‘stop’.

The locational and instrumental meanings of adjuncts (N + dza) were found to have a link with thematic roles. The meaning of the adjunct corresponds with the thematic role of the noun. So because the knife has the thematic role of INSTRU the adjunct also has this meaning and the whole meaning of the clause is realised as INSTRU. As predicted by Vogel, when ni-dza is used with an animate NP it gives a locational meaning. Vogel’s hypothesis that the same locational meaning would be rendered with non-animate NPs was shown by an example in my data.

The clips used in this data were designed to answer certain questions posed by the Max Planck Institute. The data provides a starting point for illuminating some of these questions. As expected, the cut and break clips were expressed transitively and the AC often used so Banawá supports the hypothesis that such actions are expressed transitively cross-linguistically. The OC was frequently used to track what happened to an object. The cut and break clips were designed to elicit the co-lexicalisation properties of the cut and break verbs. I found that wisi co-lexicalised the instrument used; specifically a knife. baa co-lexicalised the manner of action (beating), and I hypothesised kaa did the same (chopping). Following the procedure outlined by Max Planck, I hypothesised that waka co-lexicalised the object and manner of breaking (rigid → shatter) whilst seho co-lexicalised the instrument (scissors).
Some of the caused position clips elicited stative locative verbs where there was no agent positioning the object. In Banawá some examples of these were *ita, fore, ware*. Many of these verbs do not appear in the caused positions so Banawá positional verbs are not used in *CAUS* constructions. The caused position clips showed the verb *wa* and *fore* could be used in the stative as well as the caused position clips. All topological relations in Banawá were expressed using adjunct phrases with *dza*.

In the staged event clips, the same complementary distribution pattern was noticed with *ka-* and *to-* as with the cut and break verbs. *yana* always appeared with *to-* whereas *yubi* and *maa* always appeared with *ka-* . Another area of future research would be to explore actions verbs co-lexicalisation properties. For example, in English it would be unusual to say ‘The man kicked the ball with his foot’ because the verb ‘kick’ co-lexicalises the body part the action is carried out with. In Banawá the adjunct *teme-dza* ‘with (his) foot’ was used, which suggests the verb *taro* does not necessarily co-lexicalise the body part.
7 Limitations and Suggestions for Future Study

7.1 Limitations

It would be useful to identify any factors that affected the quality or quantity of my data.

Time

The major factor was time, as we only had two weeks in the village. It defined most of the limitations with the study. I would have liked to go through the clips with more informants from both sexes and a range of ages, which would have given more information. For example, the Max Planck manual recommended using at least 6 informants for the ST-EV clips but this was impossible in the time we had. (Manual: 116).

It was more important to completely process the data we had already collected rather than recording more responses, which we could not process. So even though I would have liked to collect more responses it was better to ensure the data I had was completely correct. Even this did not entirely happen because I still have gaps in my data that need to be resolved. The main gaps are in the ST-EV clips because I do not have a translation for some of them. I can guess the meanings from what the clips depicts but their analysis needs further work.
Misunderstandings

The informants did not give to give any kind of spatial orientation phrases when objects were placed upside down or on their side (non–canonical positions). There are some possibilities why this could be. Perhaps the informants do not perceive objects as having canonical positions so did not see the need to specify otherwise. I made sure I drew attention to the fact that the object was upside down by doing the same with my mug or similar object as I could not explain properly in Portuguese.

Sometimes the translation of the response made it obvious that I had not showed the informant the clip properly because they had missed the key action of the scene. However, I did not realise until it was too late to go over the data again. This is true for some of the spontaneous cut and break clips and it is a shame because that data was limited as it was. That data would have to be recollected and expanded upon on a return to the field.

Language

It was obviously not possible to learn Banawá in the time we had, so we had to learn some Portuguese. My level of fluency was not of a high enough standard to discuss the clips with the informant as advised by the Max Planck manual, or to press for details such as the spatial configuration expressions.

This essentially means we could not discuss the clips as fully as I would have liked, which would have improved my analysis. The analysis would have been enhanced by filming the informants’ gestures when they responded to the clips. Not only did they
provide me with an immediate translation when we were recording and translating, but they would have provided me with a good record of the gestures when I was analysing the data out of the fieldwork situation. This was recommended by the manual but we did not have enough equipment in the field to do this.

7.2 Some Suggestions For Future Research

**to-, ka-, -ma**

*to-* fills the criteria for several grammatical functions as discussed by Dixon, Vogel, and Buller and these roles need to be discerned more clearly. The function of *ka-* may not be COMIT/APPL or semantic as it could be tentatively analysed as fulfilling the criteria for the middle voice. The suffix *–ma* and its occurrence with the MOT verb *ka-* needs further investigation in Banawá as it cannot solely mean ‘back/return’.

Maki yama taro to-na-mai teme-dža

man.M thing.F kick MOV.AWAY-AUX.ADV.M foot-ADJ

The man kicks the thing away with his foot.

In English the verb ‘kick’ has as part of its semantics the notion of moving something with the foot. If the foot is specified in the ADJUNCT then perhaps this is not so in Banawá. A way to find out would be to see if it is still grammatical without the ADJ.

**kasa** It occurs with clips that show complete and partial separation but could also mean ‘cleanly, in one movement’. Therefore its distribution with other ‘break’ verbs where the breakage is complete or partial needs to be further investigated.
C.P 4, 15, 17, 36, 45 all have the verb *na-wata* ‘put down on’ which describes the action in the clip. (The object in clip 36 and 45 is a pot and the other three clips had a ball as the object, which are all circular objects. It could be interesting to see if *na-wata* was preferred when describing circular objects). The others have *wa* which describes the location of the object.

ST-EV – when a woman is eating the verb *tafa* is used. (044ET) When a man is eating *yome* (034ET) is used. This could be investigated further by showing more clips to see what variables (if it is gender) determine the use of which verb of ‘eating’.

The argument for *ka*- marking the middle voice (p48) would be enhanced by eliciting plate-breaking sentences where the agent was male. If the verb still appeared as *waka-ka-na* that would show that the patient, the plate, was being indexed in an INTR clause and would provide further evidence that *ka-* was marking the middle voice.

On p66 I discussed the co-lexicalisation properties of Banawá verbs. To see if *wisi*, *baa* and *seho* are TR verbs that antipassivise more work would have to be done by eliciting passives containing these verbs. This would then confirm the analysis I posited for each verb’s co-lexicalisation properties.
References

University of Cambridge Press

Buller Barbara & Ernie (Feb 1991) Banawá : Ergative or Accusative?
(7-14-93) 6.0 Causatives
(8-19-93) Predicate Structure in Banawá
(7-29-93) Suffixes in Banawá

Buller, Ernie (2-23-94) Passives in Banawá

Buller, Buller and Daniel.L Everett (1993) ‘Stress Placement, Syllable Structure
and Minimality in Banawá’ International Journal of American Linguistics 59
No. 3 pp 280-293

Journal of American Linguistics 66, No1, pp 22-56

Ed. Levinson, Steve & Nick Enfield ‘Manual for the Field Season 2001’ Max Planck
Institute for Psycholinguistics, Language & Cognition:

---

1 This is the only reference I have on the articles by the Bullers.
‘Cut and Break Clips, version 3, designed by Jürgen Bohnemeyer, Melissa Bowerman & Penelope Brown’

‘Caused Position Clips, designed by Birgit Hellwig & Friederike Lüpke’

‘Staged Event Clips – Miriam van Staden, Gunter Senft, Nick Enfield & Jürgen Bohnemeyer & others.’
