Summary of the results on the research on intonation and information structure in Banawá

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1. Introduction
This paper presents a summary of my research on information structure in the Brazilian indigenous language Banawá, which is spoken by a small tribe of approximately 80 people living in the Brazilian state of Amazonas. A description of the more specific research results will be presented after the summary of the methodology and a general introduction on some aspects of the Banawá language.

1.1 Methodology, Data Collection and Analysis
The data, which this research is based on, were collected during two field trips to the Banawá village: one of approximately two weeks in July 2004 and one of approximately six weeks between July and August 2006. Whilst the first field trip was undertaken in a larger research group with several objectives and also served to initiate a first contact with the Banawá people, the second one provided a much better insight into their lives and their language.

The main corpus of the data was collected during the second field trip. The aim was to gather several texts from different genres and various speakers of different age groups and both sexes, looking at various aspects of intonation and information structure in the Banawá language. Unfortunately, our visit coincided with a larger demarcation project undertaken by the Brazilian Indian Agency FUNAI, for which most of the Banawá men were employed, so that the remaining people in the village were mainly, but not entirely, women, children and old people. The women turned out to be less willing to work with us on their language than I had assumed, as they are very shy and have hardly had any experience with this kind of work. They generally do not interact with outsiders and therefore also do not speak Portuguese (as the lingua franca) as well as the men do. I collected texts from five speakers, including one woman. The texts were all recorded with a Professional Marantz Solid-State Recorder PMD671. The data were then transferred onto a computer. For the analyses of the pitch contours and other phonetic features, I used the software Praat.

In addition to the texts and narratives, I also recorded elicited data aimed at more specific research questions concerning intonation and information structure. Several different approaches to data elicitation in fairly natural contexts were tested, including different question – answer games for several speakers. One of them was aimed at the elicitation of polar questions and contrastive focus with two speakers. One of the players (speaker A) was shown a picture of a particular object. The other person (speaker B) was supposed to find out which object it was from a range of objects placed in front of him on a table by asking various polar questions about the nature of the object starting with a very general question such as “Is it a basket?” Without naming the object itself, speaker A would then give clues, such as “No, it’s a cup”. With the next step
speaker B would ask more specific questions in order to find out which cup it was (“Is it the red cup?”) and thus narrow it down until the object was identified. Another game was very similar with picture pairs instead of objects, which could only be distinguished by one feature; such as a man fishing vs. a child fishing, or a large fish and a small fish etc. Interestingly, these experimental games proved very unsuccessful for reasons, which are not entirely clear to me. The first game may have failed due to the choice of objects, although we tried to use culturally unspecific objects, as well as objects, which we knew the Banawá were familiar with and which they have a name for. The rules were clearly not too complicated, as they were perfectly capable of doing a test-run of these games in Portuguese. However, they then seemed unable to transfer the rules into Banawá when they were supposed to play the game in their own language. This poses interesting questions as to whether there are language barriers which keep them from playing these games in Banawá.

Due to these failures and also the fact that I only had one high-quality microphone, I resorted to the translation of sentences and short invented conversations from Portuguese into Banawá. Although this is a long way from being from naturally spoken discourse, it still seemed to be the most successful strategy and ended up providing the best results. All the data elicited in this way were recorded with my main consultant Sabatao, as he has the best knowledge of Portuguese as well as the most experience with this kind of linguistics work. The texts were transcribed and then checked and translated into Portuguese with Sabatao’s assistance. I worked with him almost daily for one to three hours, depending on how much time he could spare. For the glossing of the transcriptions I often consulted both the Banawá-English wordlist, compiled by the Missionaries Ernest and Barbara Buller, and the Jarawara - English dictionary by Alan Vogel (Vogel, 2006).

1.2 Introductory Note on the Banawá Language
1.2.1 Genetic Affiliation
Banawá is part of the Arawan language family. The family consists of the languages Arawa, which became extinct in the 1880s, Paumari, Kulina/Deni, Suruwaha, Jarawara, Jamamadi and Banawá. The latter three are all very closely related and fully mutually intelligible. Linguistically, they are therefore generally considered dialects of one language, referred to as Madi. According to Dixon, who has done extensive research on the Jarawara dialect of the Madi language, the three dialects share about 95% of vocabulary and their grammars are similarly close (2004: 8, 12).

1.2.2 Morphological Features
Banawá is a fairly polysynthetic language; the morphology is mainly agglutinative, using both prefixes and suffixes, with few occurrences of fusional morphology. The language seems to be mainly head-marking, with the predicate being the only obligatory part carrying most of the agreement affixes.

In a noun phrase, however, the dependents such as adjectives, possessors and other modifiers carry the agreement markers, as illustrated in the following examples.
1.2.3 Word Classes
1.2.3.1 Verbs
Banawá verbs are either inflecting or non-inflecting. The majority of them seem to be non-inflecting. Whilst inflecting ones always carry the agreement markers on the verb root, non-inflecting ones need an auxiliary to attach the affixes to. The auxiliary follows the main verb and is usually –na/-nei:

inflecting:
- nofa/nofei ‘like/want’ kabikana damiao nofei ‘Damiao wants fishhooks’
- abowa/abowei ‘die’ enemed abowei ‘The boy died.’

non-inflecting:
- amo na/amo nei ‘sleep’ odaka owa amo nei ‘The other one slept’
- daa na/daa nei ‘give’ biri didisa daa nei nemede niya ‘Biri gave the bow to the child’
- mowa na/mowa nei ‘do’ karabowa mowa ti-na-ni ‘Did you make this blowgun?’

1.2.3.2 Nouns
Banawá has two different classes of nouns: free nouns and possessed nouns. All free nouns have an inherent gender, which is either feminine or masculine. The unmarked gender is feminine, which is unusual across the world’s languages. This is expressed in various ways: A group of people or animate nouns for example always receives feminine gender, as do words of which the gender is unknown. Possessed nouns always take their possessor’s gender.

The gender is never expressed in the noun itself but by agreement with other syntactically associated parts, such as adjectives or mood suffixes which have different forms for masculine and feminine.

1.2.3.3 Pronouns
Banawá has a complex pronoun system, which plays an important role in the information structure of the language, as I will show further down. First and second person singular pronouns are anaphoric clitics (o- and ti-). Third person singular pronouns do not exist;
instead third person singular referents are always expressed by various agreement markers. The first person plural has two different forms. Depending on whether the addressee of the utterance is included or not, the Banawá distinguish $ee$ (including the addressee) and $oda$ (excluding the addressee). Both of them are free morphemes, as are the other plural forms, $de$ ($2^{nd}$ person) and $mee$ ($3^{rd}$ person).

In addition, there are object pronouns which have the following forms: $owa$ ($1^{st}$ person), $tia$ ($2^{nd}$ person), $eere$ and $odara$, respectively ($1^{st}$ person plural inclusive/exclusive), $dere$ ($2^{nd}$ person plural) and $meere$ ($3^{rd}$ person plural).

1.2.3.4 Adjectives

The language only seems to have very few adjectives. They usually have different forms for masculine and feminine gender as shown in the following examples (the feminine form is given first, then the masculine one):

- $madi/badi$ ‘large’
- $nafi/nafiei$ ‘big’
- $bide/bidi$ ‘small’
- $mina/minei$ ‘early’
- $yufina/yufinei$ ‘dangerous’

1.2.4 Word Order

What follows is just an introductory note on the word order issue in Banawá. More specific details on it will be given in the appropriate sections further down.

Banawá is a verb-final language with SV as the basic word order in intransitive sentences and either OAV or AOV in transitive sentences. Whether there is a basic word order and if so, what it is, is not entirely clear. In the closely related dialect Jamamadi, the basic word order is claimed to be OSV, unless the subject (agent) is the topic of the sentence, in which case the word order changes to SOV (Campbell, B. 1977: 10) In the Jarawara language either word order seems to be acceptable and frequently used. Dixon argues that there is no basic word order. Partly, it seems to be determined by the choice over one or the other transitive constructions, which the language seems to have; Dixon refers to them as the A-construction and the O-construction respectively, depending on which one of the two arguments (agent or object) is the grammaticalised topic or pivot of the sentence. This will be discussed in more detail further down. Both transitive construction types seem to have different formal characteristics, which I will not discuss in too much detail here. With regard to the word order, however, the sentence-initial position seems to be predominantly occupied by the agent argument in A-construction sentences and by the object argument in O-constructions (2004: 388?). This also seems to be the case in Banawá.

In previous research I suggested that the sentence-initial position is the preferred focus position. As I will show later on, there are several indicators for this. However, there is also evidence supporting Campbell’s claim that the topic of the sentence is moved to the beginning of the clause. Dixon’s analysis of the pivot being predominantly fronted would also support this claim. Examples and further discussions follow in section 2.2.
Ditransitive clauses seem to follow the same rules as monotransitive sentences with the indirect object being added in postverbal position. The word order is thus, as expected, either AOVO or OAVO as illustrated below:

(1)  
A O V O  
deła aba daa-ne araba ti-ka dao niya?  
name.M fish give-AUX QU 2S-POSS son ?  
Did DEKA give the fish to your son?

(2)  
O A V O  
aba deka daa-ne araba ti-ka dao niya?  
fish name.M give-AUX QU 2S-POSS son ?  
Did DEKA give the fish to your son?

It should be noted, that these remarks on the basic word order are only valid for clauses and sentences in which the arguments are lexical noun phrases, which is only the minority of cases. Pronouns usually occur in preverbal position and follow different rules. This will also be discussed in more detail in section 2.2.

Some of the points I am making in this paper were already mentioned in previous research on the language (Reinbold 2004). However, as my understanding of the language has improved, I have realised that some of my previous claims were wrong or incomplete. As these are still preliminary stages of my knowledge of the Banawá language, the following claims are also to be considered hypotheses rather than factual statements.

1.3 Information Structure
The research was based on information structure terms as defined by Lambrecht (1994). The definitions of the main terms will be given below.

Lambrecht defines two basic types of information structure categories: the mental representation of entities or propositions, manifested in different activation states of discourse referents, on the one hand, and pragmatically construed relations between denotata and their propositions on the other hand. The two basic types of pragmatic relations are topic and focus, which he defines in the following way:

‘TOPIC: A referent is interpreted as the topic of a proposition if in a given situation the proposition is construed as being about this referent, i.e. as expressing information which is relevant to and which increases the addressee’s knowledge of this referent.’

‘TOPIC EXPRESSION: A constituent is a topic expression if the proposition expressed by the clause with which it is associated is pragmatically construed as being about the referent of this constituent.’

(Lambrecht 1994: 131)
The pragmatic relation of focus is furthermore defined as:

**FOCUS**: The semantic component of a pragmatically structured proposition whereby the assertion differs from the presupposition.

**FOCUS DOMAIN**: The syntactic domain in a sentence which expresses the focus component of the pragmatically structured proposition.

(Lambrecht 1994: 213, 214)

Languages across the world employ different strategies and formal devices to express these different categories, including morphology, syntax and prosody. The difference between presupposed and asserted propositions as well as the difference between identifiable and unidentifiable referents is usually expressed by morpho-syntactic means, such as word order, syntactic subordination, and definite determiners; discourse-active denotata are distinguished from their inactive counterparts by pronominal rather than lexical coding as well as through prosodic means.

In the following sections I will discuss various strategies Banawá uses to express the different information structure categories.

### 2. Topics and Foci

#### 2.1 Topics

According to Lambrecht, the preferred topic expression is the unaccented pronominal (including null-morphemes and agreement markers), as both unaccented as well as pronominal coding imply that the topic referent can be assumed to be accessible to the hearer.

Lambrecht makes a further distinction between lexical and pronominal topic expressions, as they serve different functions in discourse situations and can therefore not be assigned the same general rules.

Cross-linguistically, it has often been claimed that topic expressions have a tendency to occur at the beginning of the sentence. Lambrecht however argues that this claim is not categorically valid for all topic expressions but only for accented ones, since their primary function is to either establish a new topic referent or to indicate a shift in topic referents which requires them to be positioned in a particularly prominent sentence position at the beginning or preferably even before the sentence in order to facilitate the cognitive process for the hearer.

Unaccented pronominals, which he argues are the preferred topic expression, are already established as topic referents in the hearer’s mind and therefore do not demand such a prominent position. For these expressions it is, as he continues, more important to be close to the predicate which governs the semantic and syntactic relations in the clause (Lambrecht 1994: 201f).

In the next section I am going to illustrate that these general typological claims also apply to Banawá.
2.2. Topics in Banawá

Topics in Banawá are highly grammaticalised. The main structural implication of this topicalisation process is the use of the two transitive constructions in Banawá, which have already been mentioned in section 1.2.4. The choice of whether to use the A-construction or the O-construction seems to be discourse-driven, depending on whether the agent argument or the object argument of the clause is the pivot (grammaticalised topic). Once the topic has been established, it will then remain the topic for a number of consecutive clauses, paragraphs, or sometimes for the entire narrative. New topics are generally fronted and coded as an accented lexical noun phrase (see example (3a) and (4a)). Sometimes, they are separated from the rest of the clause by a pause. After the activation process, the topic is usually expressed as an unaccented pronoun or, in the case of third person topic referents, not overtly expressed at all but instead expressed through agreement markers (see (3b,c) and (4b)), although Banawá also seems to have a fairly high tolerance of repeating active topic referents. Pronouns are, as previously mentioned, generally located in the immediate preverbal position, which supports Lambrecht’s argument, that unaccented topic expressions do not require a prominent position and benefit more from being closely associated with the verb.

(3)

a) enemede nafi-rei madi yowari foi.
   child big-NEG.M mother.F breast.F suck/drink
   The little boy drinks from his mother’s breast.

b) madi yowari-ya yanei.
   mother.F breast.F-COM grow.M
   He grows due to the mother’s milk.

c) nafi owawei yakana-wa-wei.
   big more.M walk-AUX-RED-DUR.M
   He’s growing more, he can now walk.

(4)

d) yumai idi-me tabi yama-ma yete hi-nei.
   jaguar.M grandfather-3PL following thing-? hunt Oc-AUX.M
   The grandfathers went hunting the jaguar.

e) o-ka idi tao hi-kana minei matamona.
   1S-POSS grandfather.M shoot OC-AUX early.M PST.REP.M
   My grandfather shot him in the morning.

As previously mentioned, fronting of the pivot argument does not seem to be obligatory in transitive sentences, and often the pivot only takes the second position in the sentence, although in the majority of cases, the agent is fronted in Acs and the object is fronted in Ocs.

There are a number of structural differences between the A-construction and the O-construction pattern, of which I will only illustrate a few in this section.
The main indicators of A-constructions and O-constructions are the agreement markers, particularly mood suffixes, as they always agree with the pivot argument, according to Dixon (2000: 26). Furthermore, if both arguments in an O-construction are third person, the prefix *hi-* is attached to the verb. Since this prefix never occurs in an A-construction clause, the presence or absence of this prefix is the clearest difference between the two types of transitive constructions. A simple comparison of this structural difference is given below:

(5)  

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<tbody>
<tr>
<td>a)</td>
<td>batao</td>
<td>badue</td>
<td>tao-kanei</td>
<td>yamakabani-ya</td>
</tr>
<tr>
<td></td>
<td>name.M</td>
<td>deer</td>
<td>shoot-AUX.M</td>
<td>jungle-LOC</td>
</tr>
<tr>
<td>Batao shot a deer in the jungle.</td>
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</table>

| b) | batao | badue | tao-hi-kanei-no | yamakabani-ya |
|   | name.M | deer.F | shoot-Oc-AUX.M | jungle-LOC |
| Batao shot the deer in the jungle. |

The pivot can change within the same text as shown in examples (6) and (7) below. Both extracts are taken from a text, about a boy who was killed by a jaguar:

(6)  

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<tbody>
<tr>
<td>a)</td>
<td>nemede</td>
<td>me</td>
<td>hia</td>
<td>kamai</td>
</tr>
<tr>
<td>child</td>
<td>3PL</td>
<td>3REF</td>
<td>RET.MOT.M</td>
<td>recover-?-FUT</td>
</tr>
<tr>
<td>They brought the child back for him to recover.</td>
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| b) | dafi-mei | owarei | matamona. |
| recover.M | NEG.M | PST.REP.M |
| He did not recover. |

| c) | abowei | matamona. |
| die.M | PST.REP.M |
| He reportedly died. |

| d) | me | hi-kamo-wei | matamona. |
| 3PL | Oc-bury-M | PST.REP.M |
| They buried him. |

(7)  

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<tr>
<td>a)</td>
<td>me</td>
<td>to-kuma</td>
<td>metemone.</td>
<td></td>
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<tr>
<td>3PL</td>
<td>away-go.F</td>
<td>PST.REP.F</td>
<td></td>
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<tr>
<td>They went away.</td>
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| b) | enemed | me | kamowa. |
| child.M | 3PL | bury.F |
| They buried the child. |
In example (6) the pivot is the little boy. The two transitive sentences at the beginning and the end of the sequence are both O-construction sentences. In line (6a) the child is introduced as the new topic referent by fronting of the lexical NP nemede ‘child’ as described above. All the agreement markers in the following lines are cross-referenced with masculine endings as they are referring to the newly activated topic, which is not overtly expressed, other than in the gender agreement.

Line (6d) is different from the other sentences as it is a transitive sentence with two active referents. One of them, me ‘they’ is expressed as an unaccented pronoun, the other one, referring to the boy, which is still the active pivot, by the agreement markers with masculine endings. The prefix hi- indicates that the clause takes O-construction.

In example (7) the pivot argument is the agent, which in this case is the relatives of the boy. The absence of the prefix hi- indicates that the transitive sentence follows the A-construction pattern, the topic expression is the unaccented anaphoric pronoun mee ‘they’, referring to the referent ‘relatives’, whilst the referent ‘boy’ is reintroduced as a lexical NP. The predicate carries feminine endings in cross-reference with the pivot argument, as the topic ‘they’ refers to a group of people and therefore receives the unmarked feminine gender.

2.2.1 Word Order in Transitive Constructions

As mentioned above, the sentence-initial position is predominantly occupied by the pivot argument, thus by the agent in an A-construction and by the object in an O-construction. However, this is only a tendency and not a reliable indicator for which type of transitive construction a sentence is, as the sentence pairs below show:

(8)

a) beto  badue  tao-kanei
    name.M  deer.F  shoot-AUX.M
    Beto killed a deer.

b) badue  beto  tao-kanei
    deer.F  name.M  shoot-AUX.M
    Beto killed a deer.

Both sentences take A-construction, as indicated by the lack of the prefix hi- and the agreement in the predicate with the agent ‘Batao’. According to my Banawá consultant, both sentences are equally acceptable and show no difference in meaning, despite the change of word order. This shows that Campbell’s observation that the basic word order in Jamamadi is SOV if the subject is the topic does not categorically apply to Banawá. As Dixon also observed for Jarawara, either word order is possible, the pivot only takes the position at the beginning of the sentence in the majority of cases, not as a categorical rule.

Although, Dixon’s analysis seems to be essentially correct, I have come across a few contradictions with regard to information structure terms and relations. The problem is best illustrated with an example of a content question:
Assuming that topics can logically speaking not be part of the focus domain, and furthermore assuming that the question word in wh-questions as well as the corresponding constituent in the answer are always automatically in focus (see section 2.4.3.1), one would expect, that A-constructions would not be permitted in who-questions, where the missing argument of the assertion is the agent, and O-constructions would not be permitted in wh-questions in which the missing argument is the object, as the topic and the focus would coincide in these cases. However, example (9) below illustrates that there is no restriction on the use of Acs or Ocs in wh-questions.

(9)

a) hikei karabowa mowa-na
   who blowgun.F make-AUX.F
   WHO is making a blowgun?

b) biri karabowa mowa-na-ka
   name.M blowgun.F make-AUX-DEC.M
   BIRI is making a blowgun.

10)

a) hikei karabowa mowa hi-na-ni ama-ri
   who blowgun make Oc-AUX-? EQU-QU
   WHO made this blowgun?

b) o-ka abi karabowa mowa hi-na-ni ama-ke
   ls-POSS father.M blowgun.F make Oc-AUX-? EQU-DEC.F
   My father made the blowgun.

Both (9a) and (9b) above are Ac sentences, as they are both lacking the prefix hi- and as also indicated by the agreement of the declarative of the mood suffix –ka, which agrees with the agent argument Biri. The feminine auxiliary ending in the interrogative sentence is also cross-referenced with the question word, which takes the unmarked gender, as the gender of the referent is unknown (for comparison, examples (10a) and (b) show very similar propositions in Oc). There are various examples in the data, where the argument focus seems to coincide with what Dixon calls the topic in transitive sentences. It seems that this issue requires some further research, as I cannot offer a conclusive answer at this stage.

I will return to the discussion of wh-questions and focus marking in section (2.4.3.1.1).

2.3 Focus

With regard to focus structures, I tried to identify the various different focus structures as defined by Lambrecht: He distinguishes the three main focus structures, which he calls sentence focus, predicate focus and argument focus, depending on which part of the sentence is the focus domain. Sentence and predicate focus are both broad foci, as more than one constituent is in focus, whereas argument focus with only one constituent in focus is a type of narrow focus, which can further be divided into completive and contrastive focus. The different formal characteristics of the three focus types in English are compared in the examples in (11, 12, 13) taken from Lambrecht (1994):
2.3.1 Sentence Focus

(11)

What happened?
Sentence: *My car broke down*
Presupposition: -
Assertion: “speaker’s car broke down”
Focus: “speaker’s car broke down”
Focus domain: S

The most important feature of sentence focus structure is the fact that nothing is presupposed and thus the whole sentence is in the focus domain. Sentence focus structure is commonly used to start a new story or introduce the participants, and thus has “event-reporting function.

In the English sentence above the prosodic prominence is on car, with no other constituent being accented. The common pattern characterising sentence focus structure across languages is the marking of the subject as a non-topic (Lambrecht, 1994: 235).

2.3.2 Predicate Focus

(12)

What happened to your car?
Sentence: *My car/It broke down*
Presupposition: “speaker’s car is topic for comment x”
Assertion: “x = broke down”
Focus: “broke down”
Focus domain: VP

The predicate focus structure is what Lambrecht calls the unmarked pragmatic articulation of the three focus types. The focus domain in predicate focus structure is always the predicate; the subject is not included. The necessary condition for a sentence to be assigned this structure is thus the accentuation of the verb phrase. The subject may or may not be accented (Lambrecht, 1994: 227).

2.3.3 Argument Focus

(13)

I heard your motorcycle broke down?
Sentence: *My car broke down.*
Presupposition: “speaker’s x broke down”
Assertion: “x = car”
Focus: “car”
Focus domain: NP
In contrast to the broad focus constructions above, the missing part in the presupposition here is just one constituent. Argument focus can be further divided into contrastive and completive focus. Example (13) is a typical example of contrastive focus, as the assertion in the reply is contrasted with ‘motorcycle’ in the question. However, the same answer could also be used in a context with completive focus, for example in the reply to the question “What broke down?” Wh-questions and their respective answers are typical examples of completive foci, as the question word and their answers are the missing arguments in the proposition.

The different formal structures of the different focus structure types in Banawá will be exemplified in the following sections.

2.4 Focus Structures in Banawá
2.4.1 Sentence Focus
The formal marking of sentence focus in Banawá differs from the English marking, in that all constituents are prosodically prominent, shown in the following example:

This is the introductory sentence of a new story about a little boy getting lost in the jungle:

(14)

\[
\text{enemede nafi-rei yamakabani-ya to-kei yama watoewarei.}
\]
\[
\text{child big-NEG.M jungle-LOC away-go.M thing know NEG.M}
\]

A little boy went to the jungle; he didn’t know anything.

Below, the first part is repeated with the emphasis added and the English equivalent for comparison:

Banawá: neme de nafi-rei yamakabani-ya tokei yama watoewarei.
English: “A little boy went to the jungle.”

Just like in English, the subject argument is expressed as a lexical NP, with an accent on the last constituent of the phrase. But whilst in the English sentence the subject NP carries the only accent, the Banawá sentence has additional accents on the prepositional phrase and the verb.
2.4.2 Predicate Focus

Predicate focus is also the most common focus structure in Banawá, although it is sometimes difficult to distinguish predicate focus from other focus structures in the language, as the predicate is also accented in other focus structures. Often, predicate focus sentences consist of the predicate and nothing else:

(15)

a) yumai-ha towiyei matamona.
   jaguar-FUT change.M PST.REP.M
   The jaguar changed a long time ago.

   ![Graph with time in seconds and segments labeled "yumai ba towiyei matamona".]

b) yama yete-nei to-kei.
   hunt.M away-go.M
   He went away hunting.

c) kamai. kobo-na-mai mowei matamona
   come.M arrive-AUX-MOT.M do.M PST.REP.M
   He came back. He returned.

   ![Graph with time in seconds and segments labeled "kamai" and "kobonami".]

(16)

a) oda wetee-na. wete-ni tufiyua
   1PL tie.up.F tie.up-NOM finish
   We tie it together until it’s finished.
b) oda kama-wa-wa
   1PL  come.back
   We return.

c) tabora-ya oda kobo-na-ma.
   home-PP  1PL  arrive-AUX-?
   We arrive at home.

In example (15) the pivot is *yumai* ‘the jaguar’, which is established as the topic at the beginning of the extract. Afterwards, the referent is not overtly mentioned again, but expressed through predicate agreement. The predicate is always accented. (16) shows the same phenomenon with the unaccented pronoun *oda* ‘we’ as the topic expression.

The comparison of the pitch contour of a transitive construction of a sentence focus structure to one with predicate focus structure shows clear differences in the accentuation:
(17)  
a) Question:  
\text{taa nima namakonotona}  
what appear? happened?  
What happened?

Answer:  
\text{o-ka nosu yotokai wanakuri wayi-hi-nei}  
1S-POSS brother youngest spider.F bite-Oc-AUX.M  
My youngest brother was bitten by a spider.

b) Question:  
\text{taa ti-ka nosu ye ebe na-maku?}  
what 2S-POSS younger.brother hand happened CAUS-?  
What happened to your younger brother’s hand?

Answer:  
\text{ye wanakuri wayi-hi-nei.}  
hand spider.F bite-Oc-AUX.M  
A spider bit his hand.

Both answers above follow the O-construction pattern, indicated by the prefix \text{hi}-, but they belong to different focus structures: Answer a) is the reply to the general question “what happened?” not presupposing anything and thus can be categorised as a sentence focus structure, whereas in answer b) the presupposition is “something happened to the speaker’s brother’s hand” and thus has predicate focus structure. The accents fall on different constituents in the sentence accordingly. The predicate \text{wayihinei} ‘bit him’ is accented in both cases, as the verb always receives at least a secondary accent. The most striking difference in the accentuation is that in sentence a) there is an additional accent on the object \text{oka nosu yotokai} ‘my youngest brother’, activating the object as the pivot argument, whereas in sentence b) the agent \text{wanakori} ‘spider’ is accented. Interestingly,
the object *ye* ‘hand’ is repeated in the reply, although it was previously established as the topic in the question.

2.4.3 Argument Focus
2.4.3.1 Completive Focus

*The Unmarked Focus Position*

Previously (Reinbold 2004), I argued that the sentence initial position is the unmarked focus position in Banawá. Although this does not seem to be entirely wrong, as there is much evidence supporting this claim, it does not seem to be categorically true. Typologically, the unmarked focus position in verb-final languages is usually the preverbal position. Both these positions are sometimes occupied by focus constituents in Banawá, as I will show in the following sections.

2.4.3.1.1 Wh-Questions

A common procedure for identifying the unmarked focus position in a sentence is the use of information questions as both the question word and the constituent answering the question are narrow foci. According to this test, the unmarked narrow focus position in Banawá is the sentence initial position as question words normally appear in that particular position.

(18)

a) hikei-ka didisa ama-ri
   who-POSS bow.F EQU-QU.F
   WHOS bow is this?

b) hikei karabowa mowa hi-na-ni ama-ri
   who blowgun.F make.F Oc-AUX-? EQU-QU.F
   WHO made this blowgun?

c) beni ti-ka abi-ka yobe were-re
   where 2S-POSS dad-POSS house.M located-QU.M
   WHERE is your father’s house?

d) beni-ya yomai ti-ari
   where-LOC jaguar.M 2S-?
   WHERE did you see the jaguar?

e) taaba nemed de owi-na
   why child.F cry-AUX.F
   WHY is the child crying?

f) taanima yama amoni-ni-ya yumai maka wayi-hi-nei-no ama-re
   when thing.F day-?-TM dog.M snake.F bite-Oc-AUX.M-TM.M EQU-QU.M
   WHEN did the snake bite the dog?

g) taa ti-ka nemed mowa-na
   what 2S-POSS child.M do/make-AUX.F
   WHAT is your son doing/making?
All these examples follow the same pattern with the question word at the beginning of the sentence. This seems to show that at least in terms of content questions, the sentence initial position is the unmarked focus position. There is one exception to this pattern, which is consistently different: When asking about the whereabouts of a particular person, the person is named first, followed by the question word:

(19)

a) Toefi eeri
   name.M where
   Where is Toefi?

b) Toefi beni to-wa-ri
   name.M away-?QV
   Where is Toefi?

Both versions of the question follow this word order, which seems to suggest that this is not arbitrary. This is not the only exception, however, as the following example illustrates:

(20)

batao taa taoka-ra-no yamakabani-ya
name.M what shoot-OBJ?-IP jungle-LOC
What did Batao shoot in the jungle?

I have not identified any valid reason for these counterexamples, other than the fact that in both cases the lexical noun phrase expressing a topic rather than the focus is fronted. However, as there are also many examples of content questions which have the topic expression following the question word, this cannot be the only reason, if at all.

In the Jarawara grammar, Dixon also states that: “There is a tendency for content interrogatives to occur early in the clause.” (Dixon, 2004: 403). It could be that in Banawá it is also just a tendency rather than a rule. Interestingly, according to Dixon, the question word “where” is always clause-initial in Jarawara, which clearly is not the case in Banawá.

2.4.3.1.2 Replies to content questions:

With regard to the word order in the replies to content questions, it should be noted that the replies generally consist of the constituent which was asked for alone rather than a whole sentence. The recorded examples were all elicited and would probably seem very stilted in naturally spoken contexts.
The full-sentence replies seem to suggest that the sentence initial position is not the focus position for all constituents in the clause, if at all. It seems rather, that the basic structure of the sentence is maintained. There is a tendency for either the A or the O argument to occur predominantly in sentence-initial position when in focus, regardless of the transitive construction used, but focused indirect objects in three argument predicate sentences are still postverbally positioned, and peripheral arguments can occur either left or right of the core (see 21).

(21)

a) tanima yama niya faa kii ti-na-ba ama-ri
   what day? ? fishing 2S-AUX-FUT EQU-QU
   WHEN are you going fishing?

b) faa kii o-na-bune faiyama maniha
   fishing 1S-AUX-INT now
   I am going fishing NOW.

(22)

a) hikei badue tao-hi-kanei-no yamakabani-ya
   who deer.M shoot-Oc-AUX.M-IP jungle-LOC
   WHO shot the deer in the jungle?

b) batao badue tao-hi-kanei-no yamakabani-ya
   name.M deer.M shoot-Oc-AUX.M-IP jungle-LOC
   BATAO shot the deer in the jungle.

The prefix hi- indicates that the sentences in (22) above follow the O-construction pattern. As previously mentioned, the beginning of the clause is predominantly occupied by the pivot of the sentence. We would therefore expect the O argument to take that position. However, both the question word hikei and the answer Batao appear at the beginning of the sentence, although they are referring to the A rather than the O argument. This supports the hypothesis, that the sentence initial position is reserved for the focus of the sentence. It also seems that the answers mirror the sentence structure of the question. If the question is asked using an Ac, the answer also seems to be given in an Ac or Oc respectively, with the word order being maintained, too (examples 22-24).

(23) A-construction:

a) hikei karabowa mowa-na
   who blowgun.F make-AUX.F
   WHO is making a blowgun?

b) biri karabowa mowa-na-ka
   name.M blowgun.F make-AUX-DEC.M
   BIRI is making a blowgun.
a) hikei Banawa-ka me-ka towisawa towa-re
who name-POSS 3PL-POSS chief ?-QU.M

WHO is the chief of the Banawá?

b) badi Banawa-ka me-ka towisawa ama-ka
name.M name-POSS 3PL-POSS chief EQU-DEC.M

BADÍ is the chief of the Banawá.

The competition between the A and the O argument in replies to content questions probably does not occur very often in naturally spoken discourse as normally, the topic would be demoted to pronominal marking, in which case the focused argument would be the only lexical noun phrase and thus automatically be moved to the beginning:

2.4.3.1.3 Polar Questions
Formally, polar questions do not differ hugely from declarative sentences. The word order seems to be the same with the same tolerance of variation. Sometimes, they include a question particle or the question word araba to indicate their interrogative status. Sometimes, however, the only clue as to whether a sentence is a polar question or a statement is prosody:

a) taa yama biri mowa-na
what thing.F name.M make-AUX.F

WHAT is Biri making?

b) karabowa mowa-na-ka
blowgun.F make-AUX-DEC.M

He is making a BLOWGUN.
b) ye nasokakai wanakuri wayi-hi-nei.
hand.M left.one spider.M bite-Oc-AUX.M
No, the spider bit the left hand.

Both sentences in (26) have exactly the same formal structure. They are both O-construction sentences with the same word order. There are no question or declarative particles indicating their speech act. Prosodically, they also look very similar; however, the interrogative ending shows a final rise on the last syllable -nei. There also seems to be an additional rise on the last syllable of the O-argument –kei, whereas their declarative counterparts are falling in both cases. Another example showing a fairly typical prosodic structure of polar questions is given in (27):

(27)

deto-wa-ke-ba faiyama amaha?
2PL away-?-go-FUT now
Are you going now?

This example shows yet again the final rise at the end of both intonation groups.

As demonstrated in (26) above, a polar question in Banawá cannot be answered with a simple yes or no but rather has to include the verb again, which is either negated or asserted.

2.4.3.1.4 Focus in Polar Questions
The focus of the sentence seems to be mainly indicated by prosody in polar questions. There are no morphological signs and the syntax seems to be as flexible as in statements. In (28) below, the same sentence is shown with different word order. In both versions, the agent ‘Deka’ has the primary accent:
Interestingly, the rise on the last syllable, which was described above, is missing in these sentences. This could possibly be explained through the presence of the question word *araba*, which indicates that the sentence is a polar question and therefore does not require any special prosodic indicators.

2.4.3.1.5 Emphatic Pronouns
In section 2.1 I mentioned that unaccented pronouns are the preferred topic expression, as pronouns always have a discourse-active topic referent. In certain contexts, however, pronouns can also act as foci. These focal pronouns are specially marked in Banawá, by the use of a different form, consisting of the object pronoun with the preceding demonstrative *ha*, illustrated in the examples below:

(29)

```plain
hikei aba hi-nawasiei nafi
who fish.M 3-fishing.M big
Who caught the big fish?
```
aba o-koto hi-nawasiei taa nafiei.
fish.M 1s-daughter 3-fishing.M CONTR big.M
My daughter caught the fish.

ha tia-ama?
DEM 2S.OBJ-EQU
That was YOU?

ha owa ama-ke aba badi o-nawasia-re-ka.
DEM 1S.OBJ EQU-DEC.F fish big 1s-catch-?-DEC.M
Yes, it was ME. I caught the big fish.

(30)

hikei badue tao-hi-kanei-no yamakabani-ya
who deer.M shoot-3-AUX.M-IP jungle-LOC
WHO shot the deer in the jungle?

ha owa ama-ke.
DEM 1S.OBJ EQU-DEC.F
It was ME.

It is not quite clear from these examples, whether ha, which here is glossed as “demonstrative” is actually a demonstrative or part of the emphatic pronoun itself, being homonymous with the demonstrative, since it always seems to appear in this context. This emphatic form is also used in contrastive contexts, which will be discussed in the next section.

2.4.3.2 Contrastive Focus
Contrast seems to be a fairly complex issue in the Banawá language. In my dissertation (Reinbold, 2004) I argued that contrastive focus is mainly prosodically marked but is also marked by the use of demonstratives. Further research has now revealed that the marking of contrast is a much more complex matter and that Banawá makes use of various morpho-syntactic means to indicate contrast, which again vary, according to which constituent in the clause is going to be contrasted. As I will show in more detail in the following sections, the devices vary between contrastive particles, demonstratives, word order variation, and prosody and often a combination of these.

2.4.3.2.1 Contrastive particle –taa
Noun phrases are contrasted using the particle –taa, which follows the contrasted constituent. The particle is generally used to contrast two noun phrases in subsequent clauses, following the pattern “not THIS, but THAT”. The preceding clause with the corresponding noun phrase is also marked with the negative marker –ra or –ri. This is illustrated in (31).
Dixon also found the particle in Jarawara, where it seems to be used in a similar way. The corresponding NP is also in a preceding clause bearing contrastive negative marker –ra or –rihi (Dixon, 2004: 283).

Although this seems to be the more common pattern, it is also possible for the negated part of the pair to follow the clause with the contrasted constituent following the pattern “THIS, but not THAT”. In this case, both corresponding noun phrases seem to be marked by the particle –taa in addition to the negative marker –ra or –ri, which is nevertheless attached to the negative clause, as shown in the examples (32) and (33). The particle is always stressed with a falling accent.

(32)
karai yifari taa nofe maditowei feijao taa nofe madito awarei
name.M banana CONTR like very.M beans.PORT CONTR like very NEG.M
Clive likes BANANAS a lot, but BEANS he doesn’t like.

(33)
yifari taa nofi maditowei kaira taa no-nofa-ra manei
banana CONTR like very.M guava CONTR RED-like-NEG ?
BANANAS he likes a lot, but GUAVA he doesn’t like a lot.

This strategy is not restricted to contrasting direct objects. It rather seems that it can be used to contrast all noun phrases in a sentence. A few examples are given below:

(34) Agent:
karaifi taa yifari nofe maditowei, nosori taa yifari nofa-ra manei.
name.M CONTR banana.F like very.M younger.brother CONTR banana.F like-NEG ?
CLIVE likes bananas, but his younger BROTHER doesn’t like them.

(35) Adverbial:
faa kii o-ni bute o-ni owara mai tokei-taa-ya faa kii o-na-bune
fishing 1S-AUX ? 1S-AUX NEG afternoon-CONTR-TM fishing 1S-AUX-INT
I’m not going fishing now, I’m going fishing LATER.

(36) Indirect objects:
aba daa-ne awarei o-ka dao niya aba daa-nei o-ka toni-taa-ya
fish give-AUX NEG.M 1S-POSS son ? fish give-AUX.M 1S-POSS daughter-CONTR-to
He didn’t give the fish to my SON, he gave it to my DAUGHTER.
(37) Pronouns:
oda-ka owa-taa amo-nei, haa owa-taa amo-nei owara.
1PL-POSS other-CONTR sleep-AUX.M DEM 1S.OBJ-CONTR sleep-AUX.M NEG.F
The OTHER ONE slept but I didn’t sleep.

(38) Direct Objects:
madi yowari fowe wa-ma-re yama taa taa kaba-wa-wei.
mother breast suck DUR?-NEG food CONTR eat-RED-DUR.M
He doesn’t get breast fed anymore, he eats FOOD now.

The following example is interesting, as it entails a double contrast. It is the reply to the question “Are the fish you caught big?”

(39)

aba me ti nawasia me dami
50 200 100 150
Time (s)
0 5.17224

aba me ona wasia me dami owara
50 200 100 150
Time (s)
0 9.32862

aba me ti nawasia me foti araba
50 200 100 150
Time (s)
0 5.00971

aba me fama me taa me foti owara aba owa damarei taa nafiei
fish-PL two 3PL CONTR 3PL large NEG fish one one CONTR big.M
Two of the fish are small (lit. not large), but one is big.

In the reply in (39) the numbers one and two are contrasted on the one hand, and the adjectives small and large are contrasted on the other hand. This poses a few questions as to the interpretation and analysis of the word order. The first use of the particle is attached to the topic expression mee ‘they’. The pronoun refers to the preceding topic referent abame fama ‘two fishes’, which is topicalised by left-dislocation as described above. The second occurrence of the particle occupies the position between the number damarei ‘one’ and the adjective nafiei ‘big’. The question now is, whether –taa marks the number or the adjective ‘big’ as contrastive.
A few lines down, we find another occurrence of –taa in an unusual position, between the verb hinawasiei ‘catch’ and the adjective nafiei ‘big’:

(40)
aba o-koto hi-nawasiei taa nafiei.
fish 1S-daughter 3-fishing.M CONTR big.M
My DAUGHTER caught the BIG fish.

This is an unusual position, as the particle normally follows a noun phrase. From the context one would assume that the particle belongs to the adjective it precedes rather than the verb it follows. The sentence yet again contains two different foci, both of which are narrow: ‘my daughter’ is completive focus, as it is the answer to the preceding question ‘who’, ‘the big fish’ is contrastive focus, as it is contrasted with the smaller ones which were previously mentioned. The verb, however, is not part of the focus domain and thus does not require any special marking. Moreover, verbs do not seem to be marked contrastively in this particular way.

We can then conclude, that the adjective is emphasised by positioning it postverbally, as well as by the preceding particle –taa, which marks it as contrastive focus. With this in mind, it becomes more difficult to decide whether the particle in example (39) above marks the adjective or the number. Prosodically, it seems to be more closely attached to the number, however, than to the adjective. Furthermore, it also corresponds to the first –taa, which referred to the noun phrase “two fish”. It thus seems more logical to me to consider it to be part of ‘one’ rather than part of ‘big’. Noun phrases and adjectives seem to be the only word classes which can be contrasted in this way.

2.4.3.2.2 Contrast of Several Elements in one Sentence
Unfortunately, there is not enough evidence to say anything conclusive about the structure of sentences with more than one pair of contrasted elements, but from the limited data, it seems that only one of the contrasted pairs is marked with the particle –taa. The contrast in the other pair, at least in the following example, seems to be marked by the adverb bisa ‘too’ preceding the contrasted element.

(41)
yifari-taa daa-na bisei o-ka dao niya, aba-taa daa-na bisei o-ko toni-ya
banana-CONTR give-AUX too.M 1S-POSS son TO fish-CONTR give-AUX too.M 1S-POSS daughter-TO
He gave the BANANAS to my SON and the FISH to my DAUGHTER.

As the pitch contour of the sentence shows, both –taa and bisei are accented in both cases, with bisei carrying the main pitch accent:
It should therefore be further investigated, whether the adverb *bisa/bisei* serves a similar function in marking contrasted elements in general and, if so, which contexts it is used in.

2.4.3.2.3 Demonstratives
In my dissertation I argued that contrastive focus is often indicated by the use of demonstratives. Given the results presented in the previous section, I would now categorise their function as being identificational rather than contrastive. There seem to be several different demonstratives, which can possibly be distinguished by their function and position in the noun phrase, as they occur both before and after the noun they modify. So far, I have found the following demonstratives: *fe, fa, fai,* and *hai.* It is not yet entirely clear what their distribution and functions are and whether they can all be used in the same contexts. Further research on this is required. A few examples are shown below.

(43) hai aba ti-nawasi-tei-no ama-ha
    DEM fish 2S-catch-? IP NONEYE EQU-QU?
    Did you catch this fish?

(44) fai aba o-nawasia
    DEM fish 1S-catch
    I caught this/that fish.

(45) yifo fee ama-ka ha
    hammock DEM EQU-DEC ?
    Yes, I made this hammock.

(46) fee ino matamona kiso
    DEM name.M long.ago.M kiso
    His name was Kiso.

(47) fa oda eene
    DEM 1PL result
    This is our work.
2.4.3.2.4 Declarative Marker –ke/-ka
This marker is usually suffixed to a verb in a declarative sentence. According to my main Banawá consultant, it is an optional marker, which does not change the meaning. Both sentences below seem to be acceptable and correct.

(47)

a) biri karabowa mowa-nei
   name.M blowgun.F make-AUX.M
   Biri is making a blowgun.

b) biri karabowa mowa-na-ka
   name.M blowgun.F make-AUX-DEC.M
   Biri is making a blowgun.

However, my consultant maintained that with the suffix the utterance is stronger and more assertive. My data also supports this, as almost all the answers to information questions seem to be bearing this special marker.

In certain contexts, the suffix also seems to add special emphasis in a contrastive sense. It might be comparable to the German particle “doch” or the emphatic do-construction in English in contexts such as “He did say that”. The speaker of a proposition like that generally presupposes that the hearer has previously questioned the truth value of the proposition.

The following example is taken from a text, in which a father tries to teach his children about the dangers of the jungle. The children are sceptical and question the existence of dangerous animals in the jungle, but the father tries to reassure them of their existence using the declarative marker –ke/-ka:

(48)

a) yama honi owara mone, enemede me atini mowa.
   thing.F have NEG.F REP. child 3PL voice-NOM do.F
   There is nothing (in the jungle), the children say.

b) yama hona-ke, yamakabani maka kia-ke.
   thing.F have-DEC.F jungle.F snake have-DEC.F
   There are things, there are snakes in the jungle.

The father uses the same verb in b) as the children did in a). But whilst the children negated the verb with the negative marker owara, the father asserted them by attaching the declarative marker –ke to the same verb.

The suffix seems to be accented, when it is used in this particular way, as shown below:
In the emphatic do-construction in English, the verb gets deaccented and the pitch moves to the auxiliary ‘do’. In Banawá, on the other hand, the verb is still accented, but the suffix giving the verb emphasis is also accented. The suffix is also attached to the verb in the second clause in (48b). In this case, it does not actually correspond to a proposition which was questioned in the previous utterance. It seems to be more of an explanatory addition to the previous proposition.

3. Summary and Conclusion
This paper is an attempt to summarise the results on the research on intonation and information structure in Banawá thus far. It seems that Banawá does not differ hugely from European languages with respect to the marking of topic relations and focus relations. Topics are coded according to their function and activation state: Reference-orientated topic expressions, which introduce a new topic referent to the discourse, are often fronted and coded as lexical noun phrases; they are also usually accented. Role-orientated topic expressions, on the other hand, are mostly coded in the preferred topic expression as unaccented pronouns or even only expressed in the predicate agreement markers in the case of third person topic referents. The Ac and Oc construction question requires further research, it seems, as there are contradicting factors between the focus status of wh-question words and the topic status of the pivot in Acs and Ocs.

The different types of focus are expressed differently, using various morpho-syntactic and prosodic devices. Predicate and sentence focus are mainly expressed by prosody and word order variation, although the word order issue has also not yet been entirely
resolved. The predicate always seems to be accented, whether predicate, sentence or argument focus; the other focus types seem to be distinguished by additional accents rather than lack of predicate accentuation. If the sentence has an event-reporting function and thus has sentence focus, all constituents seem to be prominent. Argument focus has to be divided into completive and contrastive focus, as they are coded very differently.

Completive focus has mainly been looked at in the form of wh-questions and their respective answers. For wh-questions it seems to be fairly clear that the focus position is at the beginning of the clause, although exceptions have also been observed, which cannot be explained at this stage of research. The focus in polar questions seems to follow the same rules as in declarative sentences.

Again, further research as to word order variation is needed here with respect to the different transitive constructions and which constituents can be in focus in the two different transitive types. Thus far, it looks like the coding is mainly expressed in prosodic terms and possibly word order variation.

The clause-initial position clearly plays a significant role in the marking of prominent sentence constituents; this seems to include topic expressions as well as argument foci.

Contrastive focus is often morphologically marked with various particles and affixes, depending on the different constituents. Lexical noun phrases are often contrasted using the particle –taa, which is suffixed to the contrasted element(s) and carries the main pitch accent.

Active topic referents, such as pronouns, can also be focused, using a special emphatic form, which consists of (at least for the first and second person singular) a demonstrative and the object form of the pronoun. These forms are also accented. I assume that the other pronouns have similar forms, but this has yet to be determined.

Demonstratives also play a significant part in emphasising certain constituents. They occur both preceding and following the emphasised constituent. I have yet to find out what rules determine the position of the demonstratives.

Lastly, the declarative marker –ke/-ka seems to sometimes be used to emphasise or contrast the predicate in a similar way to the English do-construction.

Complex sentences have not been looked at in enough detail yet, in order to be able to give a conclusive analysis as to how the different focus types can be applied to them.

References


