

Prosody and Syllabic Structure in the Banawá Language

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1 INTRODUCTION

The Banawá are one of the most unknown Brazilian indigenous groups. Inhabitants of the region of Purus river, they are very close to the Jamamadi, with whom they share several cultural aspects, so much that both languages are considered variants. The bond between the two groups is also built in the established relationship with whites. It was the Jamamadi who made the first contact of the Banawá with the whites and it was through them that the Banawá were doing their business. They extracted the rubber and delivered it to the Jamamadi who took care of the commercial procedures.

Banawá is a language of the Arawá family, which includes Madija/Kulina, Deni, Paumarí, Jamamadi, Jarawara, Zuruhará. Considered as a variant of the Jarawara/Jamamadi (according to Dienst (2008), both languages are dialects of the Madi language). It is currently spoken by 196 people, living in three villages, located in the Southeast Amazon, more precisely between the Purus and Piranha (-6.508889/-64.974167) in Brazil.

Its territory was recognized as Banawá Indigenous Land in 2004 by Portaria n. 2,583, dated September 21, 2004 (DOU 22/09/2004, page 16, section 1). It has two extractive reserves (Resex), and the indigenous lands of the Jamamadi and Jarawara, its neighbors and also its distant relatives, from whom they have separated for many years, but this date is unknown, as well as many other ethnographic and relevant histories, since this group has never been the object of an ethnographic or linguistic description.

Although the Banawá population is small, it began to grow in the last decades, presenting in its composition majority of young adults. They have a strong commercial relationship and work contact with the nearest city, Lábrea - AM, which stimulates the use of Portuguese. In the 1980s, the Bullers, a SIL missionary dedicated to translating the Bible to Banawá, lived with them for six years and organized the spelling of the language.

2 PHONEMIC INVENTORY AND SYLLABIC STRUCTURE OF BANAWÁ

Banawá has the following phonemic inventory. In the consonants, we have two sets of non-continuous oral: voiced and non-voiced. Among the voices there are three plosives: bilabial /p/, dental /d/ and lamino-palatal /j/, and two nasals: bilabial /m/ and dental /n/. Among the non voiced there are two plosives: dental /t/ and velar

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/k/, and two fricatives: alveolar /s/ e glottal /h/. There is only one liquid: alveolar /r/ and two semivowels /w/ and /y/, where /y/ is considered allophone of /j/. However, Buller, Buller & Everett (1993) describes /y/ as lamino-palatal and does not consider it allophone of /j/. Here I present the proposal of Aikhenvald & Dixon (1999), as it contains both.

b	d	j	
	t		k
		s	h
m	n		
		r	
w		y	

Table 1 Consonant inventory of Banawá language.

		i
e		o
	a	

Table 2 Vowel inventory of Banawá language.

There are four vowels in Banawá, ‘i’, ‘e’, ‘a’ and ‘o’. The vowel is usually frontal, open and medium. The vowel ‘i’ can not occupy an onset position (C) in any lexical representation, although it may occur post-lexically. There are no occurrences of [y] without [i] preceding it. The vowel ‘o’ oscillates between [o] and [u]. The vowel ‘o’ can be attached to the onset position on the syllable, where it is transcribed as ‘w’. According to Aikhenvald & Dixon (1999), there is no contrast between ‘o-’ and ‘wo-’ at the beginning of the word, neither between -owV- and -oV-, or -Vwo- and -Vo; where V is a vowel other than ‘o’. However, there is contrast between V- and wV- at the beginning of the word and between -V1wV2- and -V1V2- (Buller et al. 1993). For example:

(1) *iti* ‘throw away; take’

(2) *witi* ‘nose’

However, when there is a vowel, usually with the first-person possessive pronoun ‘o-’, it becomes necessary to insert a ‘w’ between the vowels, as described in the paragraph above. For example:

(3) *owini* → ow- ini = ‘my tooth’

- (4) *tiwitere* → tiw- ite -re = ‘sit down!’

In contrast to the presence of /o/ in onset position (C), it also occurs as in:

- (5) *otati* → o- tati = ‘my head’

- (6) *obihi* → o- bihi = ‘my arm’

It is not allowed to /i/ to take an onset position (C), but it is possible to connect it to the post-lexical C position. In the cases below, there was assimilation of the /i/ of the word that happens the possessive pronoun ‘ti-’, of second singular person.

- (7) ti- ino → *tino* = ‘your tooth’

- (8) ti- ime → *time* = ‘your flesh’

The syllabic structure of the Banawá is unlabelled post-lexical type CV (V) and allows the left-to-right association of the /i/ and /o/ vowels in empty post-lexical positions (Buller et al. 1993). In all other cases, the C position is simply not filled, resulting in a non-onset syllable. Here are some examples in Table 3.

One of the reasons for determining which V-syllables are not admitted in Banawá comes from the comparison with Sorowahá (Arawá family), where the ‘o-’ and ‘i-’, respectively, first- and second-person prefixes function as infixes in verbs beginning with consonants (Aikhenvald & Dixon 1999), for example:

- (9) gania- ‘to see’ → *goania* ‘I see’

- (10) sawa- ‘to wash’ → *siawa* ‘you wash’

Phonetically, the infix behaves like a semivowel [*g^wania*] and [*s^yawa*].

In Kulina, the phonetic description of the language presents a glottal that precedes the vowels in the beginning of the word (Adams & Marlett 1990), in a median position when together with other vowels (vowel encounters). In Jarawara, Vogel (2006) describes the same occurrence of glottal between vowels, adds the existence of long vowels, and the alternation between /h/ and /y/ succeeding /i/; and /w/ and /h/ succeeding /o/ without changing the lexical sense.

3 PERSON AGREEMENT AND POSSESSIVE PRONOUNS

In all Arawá languages, the possessive prefix and the verbal prefix of the first-person ‘o-’ and second-person ‘ti-’ characters are the same, with the exception of Paumarí and Sorowahá that have lost the ‘t’, leaving only ‘i-’ (Aikhenvald & Dixon 1999).

Thus, the prefixes are coupled to both the possessive nouns and the inflectable verbs, incurring the same phonological rules. In order to elaborate the rule, I will assume the following structure for the pronominal placement in possessive nouns and inflectional verbs.

	Lexical	Phonetics
(a)	<i>tia</i> [tiya] 'you' t i a C V V	t i a C V C V
(b)	<i>tino</i> [ti-ino] 'your tooth' t i n o C V C V	t i n o C V V C V
(c)	<i>otati</i> [o-tati] 'my head' o t a t i V C V C V	o t a t i V C V C V
(d)	<i>owini</i> [ow-ini] 'my tooth' o w i n i V C V C V	o w i n i V C V C V
(e)	<i>tiwitere</i> [tiw-ite-re] 'sit down!' t i w i t e r e C V C V C V C V	t i w i t e r e C V C V C V C V

Table 3 Syllabic structure of Banawá.

(11) [o [tati] \emptyset]

In (11), the structure is flat, both prefix and noun possessible are on the same level, avoiding morphosyntactic hierarchies that could make the following phonological rules unfeasible. For example:

(12) otati
owini

(13) tino
time

(14) tifore
tiwitere

I establish the following phonological rules:

(15) $0 \rightarrow w / o_i$

(16) $i \rightarrow \emptyset / ti\emptyset i [+cons.; +nasal]$

(17) $\emptyset \rightarrow w / ti_i$

The problem here is in the fact that we always offer /w/ to fill the gaps between /o/ and /i/. In verbal and nominal roots initiated by /i/, a /w/ is inserted between the two vowels (prefix and root), as a strategy for maintaining syllabic structure and prosody, as demonstrated in Table 3. But in Table 3 (a) *tino*, the gap is filled by the assimilation of /i/. In an attempt to elucidate the fact that in Table 3 (b) *tino* there is a trace that motivates the assimilation, I present the traces of the vowels in the Banawá. In assuming the subspecification theory, I understand that ‘e’ has no traits, ‘a’ is [+down], ‘o’ [+posterior] and ‘i’ [+high]. There is no description regarding rounding of vowel ‘i’ in Banawá language.

As the prefix ‘o-’ is always syllabic independent of being succeeded by vowel or when succeeded by consonant or of vowel ‘i’ followed by nasal does not suffer Deletion (McCarthy 1988). Therefore, the following Deletion rule applies only to the high vowel ‘i’ of the prefix ‘ti-’ in example (14) *tifore* and *tiwitere*.

1	2
V	
Dorsal	$V \rightarrow \emptyset$
[+high]	

Table 4 Deletion rule.

4 IMPERATIVE PRONOUNS

The imperative pronouns in Banawá are ‘ti-’, verb pronominal prefix, *tia*, personal pronoun in free form, and *tiye*, imperative pronoun in free form. The Imperative can be grammatically marked by all of them, but preferably by *tiye* as in:

(18) *Yaka tiye!*
Walk!

(19) *Amo tiye!*
Sleep!

The prefix flexional ‘ti-’, must be attached to the root of the verb or to the auxiliary verb, in the case of uninflected verbs, we have:

(20) *Tiwitererisa!*
Sit down!

- (21) *Tifore!*
Lie down!

In the above examples, the rules provided in (15 - 17) also proceed, with a /w/ inserted between the two vowels (prefix and root of example (12) *otati* and *owini*). As a strategy for maintaining syllabic structure and prosody, as demonstrated in Table 3.

Another rule necessary is the Lift (McCarthy 1988), as demonstrated in Table 5 below, the rule deletes the Dorsal node without traces, leaving an empty V position. This rule applies to the change of ‘e’ to ‘i’ in the verbal root, when the verb ending in ‘e’ is succeeded by the imperative pronoun *tiye*. The Apophony (McCarthy 1988) feeds the Lift in this case, for it creates an empty vowel position in the root of the verb (to the left), which will become [e]. This rule should be understood as the harmonization of the third vowel with the fourth vowel, with the consonant C irrelevant. Then, in Table 5 we have the combination of the rules Lift, Apophony and Deletion respectively, as demonstrated below.

The deletion of the first syllable of the imperative pronoun *tiye* can be explained by considering into account syntactic aspects present. The pronominal prefix *ti-*, is also used in the construction of the imperative and is present in the word, so it is acceptable to be erased from the *tiye* pronoun in the name of economics. The deletion does not exceed the vowel *i* of the root of the verb, because *y* always searches *i* to precede it. Examples:

- (22) *Titafiye!* *ti-* *tafe* *tiye*
2.SG food IMP
‘Eat!’

- (23) *Tifimia.* *ti-* *fimi* *tia*
2.SG hunger 2.SG
‘You hungry.’

Although in example (23) it is not mandatory, the same Deletion rule applies.

5 CONCLUSION

To maintain the syllabic structure of Banawá and its prosody, a /w/ is inserted between two vowels, so that it occupies an empty C position. Since the ‘a’ and ‘o’ vowels can form a syllable, the presence of ‘w’ always occurs before ‘i’. The problem however becomes greater when dealing with pronouns attached to verbal roots. When there is a verbal prefix attached to the verb and together a free form that succeeds the verb, there is the deletion of the first syllable of the pronoun of free form.

Lift									
t	i			f	e		i		
C	V	C	V	C	V	C	V	C	V
	Place			Place	Place		Place		
					∕				
	Dorsal			Dorsal			Dorsal		
	[+high]						[+high]		
Apophony									
t	i			f	i		i		
C	V	C	V	C	V	C	V	C	V
	Place			Place	Place		Place		
	Dorsal			Dorsal			Dorsal		
	[+high]			[+high]			[+high]		
Deletion									
t	i	t	a	f	i	t	i	y	e
C	V	C	V	C	V	C	V	C	V
						∕	∕		
						Pt	Pt		
						Tooth	Dorsal		
Default									
<i>tita fi ye</i>									

Table 5 Life, Apophony and Deletion rule.

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