

1 INTRODUCTION

The Maninkakan Dictionary is the second publication of the series that started with Mawukakan. The aim being to build an Electronic Dictionary of four Mandekan [Eastern Manding languages of the Mande Group of the Niger-Congo family] at the Linguistic Data Consortium (LDC) at the University of Pennsylvania. Bamanankan [Mali] and the Wojenekakan [Côte d'Ivoire] are to follow. As for the Mawukakan, the lack of written tradition makes this dictionary project extremely important. The enormous effort of Souleymane Kante, a native of Kankan, made in inventing and promoting the N'Ko alphabet in 1949 in Guinea should be underlined. The N'Ko is an alphabet inspired by Arabic, but written from left to right. If mastered, it allows a perfect transcription of the Manding languages [Mandekan]. After the introductory books on a number of diverse subjects [astrology, economics, history and religion], the N'Ko has had some success. The publications in N'Ko include today the Qur'an, textbooks on various subjects, poetry, philosophical works, a dictionary and a number of local papers. The success of the N'Ko has clearly contributed to keeping the Manding languages in the spotlight till now. A situation that fuels the competition between the distinct transcription systems proposed for the Manding languages. But despite the attraction it triggered, the N'Ko will have some difficulty adapting to the pace of today's fast evolving technology, mainly in the domain of communication. The fact is that the majority of the speakers of the Mandekan who are interested in writing those languages are people already familiar with the Latin alphabet. Therefore, the Latin based transcription used is certainly easier to master than the N'Ko, and gives hope of triggering a more rapid development of Mandekan and the culture it is related to. A last and final argument in favor of our transcription choice, and which one can't ignore, is the fact that the research community interested in the final product of LDC, and the usage they make with it, require now the exclusive use of a Latin based transcription. In any case, competition between different transcription systems is always a good thing, because it stimulates the use of each competing system, and makes it more efficient in the long term.

According to Ethnologue, Maninkakan in 2002 was used by more than three and half million speakers in Guinea and its surrounding countries. As suggested for Mawukakan, extending the linguistic component to a cultural component, is the way to maximize the usefulness of the Maninkakan Dictionary. Given the speakers of Maninkakan live mostly in the francophone area of West Africa, coupling of the Maninkakan - English lexicon with a Maninkakan - French one is very important.

Throughout this lexicon project, we will stick with the concept of dictionary making that is being developed at the LDC. Our objective being to extend the scope of the lexical database behind that of a simple list of lexical entries, which suggests that the database include, in addition to

the lexicon itself, anything that can help to a better knowledge of the language and the culture of the Manding people. See the Introduction to the Mawukakan Dictionary for more information on the LDC approach to lexicology.

Again, notice that for a maximal and efficient exploitation of the global database which will result from this project, an initiation to the linguistic disciplines of Phonetics, Phonology and Syntax will be the most helpful. Our wish is however that the final product be exploitable by linguists as well as all other researchers who are interested in the language and the culture of the Mandekans. Pursuing such objectives is the reason why the International Phonetic Alphabet [IPA] was chosen as the main transcription system of the Mandekans. It's a fact that IPA is the less costly system for transcribing the African languages without a writing tradition, and for which national alphabets were defined only at the end of the 50s, period in which most of the colonies in West Africa became independent.

2 MANINKAKAN SOUNDS

The consonant system of Maninkakan counts 19 consonantal sounds as represented in the following chart.

2.1 CONSONANTS

Bilabial	Dental	Palatal	Velar	Velo-labial	Glottal
p	t		k		
b	d	j		gb	
f	s				
m	n	ɲ	[ŋ]	[ŋw]	
	l/r	y		w	h

The sound system of Maninkakan operates with the 17 consonant phonemes that are presented in the chart above. In nasal context, the approximant phonemes have nasal allophones. The forms between brackets are the nasalized allomorphs of the corresponding approximants.

2.2 VOWELS

The inventory of the Maninkakan vowel system reveals 14 vowel segments as shown in the chart below:

VOWELS:

i • in	u • un
\	/
e • en	o • on
\	/
ε • εn	ɔ • ɔn
\	/
a -----an	

Seven oral vowels and seven nasal diphthongs compose the vowel system of Maninkakan. The only kind of nasal vowels found in Maninkakan behave like the Mawukakan nasalized segments referred to as nasal diphthongs. Again, see the introduction to the Mawukakan Dictionary. In the orthography, the nasality of such vowel is marked by a /-n/ after the vowel ([vn]). That nasality can appear in combination with each one of the 7 vowels of the system, and is not bound into the domain of the vowel. Such type of nasality triggers the nasalization of a following consonant, as discussed below.

2.3 NASALIZATION

Nasalization is a phonological process affecting some consonants after nasal diphthongs. Unlike in Mawukakan, the plosives, voiceless or voiced, are simply pre-nasalized in the context of nasalization in Maninkakan. The voiceless ones are not even voiced in this system, as one can see below:

/p, b/	→	mp/mb	/ N	_____
/t, d/	→	nt/nd	/ N	_____
/j/	→	nj	/ N	_____
/k/	→	nk	/ N	_____
/gb/	→	ŋgb	/ N	_____
/f/	→	nf	/ N	_____

/s/ → ns / N ____

But in that same nasal context, approximants become nasal consonants as illustrated below:

/l, r/ → n / N ____

/y/ → ɲ / N ____

/w, h/ → ɰ / N ____

2.4 SYLLABLE STRUCTURE

As in most Mandekan, the syllable in Maninkakan is always open, with the nucleus formed of one or two vowels. The syllable types are 1) the universal structure CV, 2) the onsetless syllable V, and 3) the structure with a branching nucleus (C)VV with V1 = V2, and 4), which is derived clearly from a disyllabic underlying structure.

Nasal diphthong has to be considered as a single vowel, an oral vowel in a diphthongal relation with the nasal feature /VN/, the last element noted as an /-n/ in the transcription system adopted here. The V of a nasal diphthong [Vn] starts oral, and is nasalized only on its last portion. All 7 vowels of Maninkakan appear in a diphthongal relationship with the nasal feature in the language.

2.5 TONAL STRUCTURE

Maninkakan is a tonal system opposing a high tone to a low tone. On the Maninkakan word, apart from the /L/ and /H/ tonal patterns, one finds a /LH/ combination, and a limited number of words with a /HL/. In general one of these four tonal patterns is affected to the Maninkakan word, independently of its length. In other words, tone patterns are specified at the level of the morpheme or lexical unit, not the syllable, as reveals the compounding process in the language.

2.5.a. TONE OF COMPOUNDS

The compounding is a process that confirms the existence of the basic tonal patterns in Maninkakan. Very productive, this process creates in general longer words, but words that wear in general one of the 4 patterns identified above. Depending on the nature of the initial tone of the initial word, a compound word can be derived with a High tone, or a LH contour as shown below:

/tólón/ # /ké/ # /fén/ → [t ó l ó n k ε ' f é n] “ t o y ”

H H H H

/móbílí/ # /bòrì/ → [mɔ́ 'bílí bórí] “ c a r d r i v i n g ”

H L H

/wòtóró/ # /bòrì/ → [wòtòròbórí] “ c a r t d r i v i n g]

LH LH

/fòròtò/ # /múú/ → [fòròtòmúú] “ p e p p e r p o w d e r ”

L H LH

/fòròtò/ # /múú/ # /sàn/ → [fòròtòmùsán]
“pepper powder buying”

L H L LH/

In the forms with an initial word with a H tone, all the tones following that initial H are deleted, and the H spreads to specify all the syllables of the resulting word. In the forms with an initial word with an L tone, the last element involved in the compound is assigned a H tone, and the initial L is spread over all the syllables preceding. The last example illustrates clearly that the compound word in these cases is assigned one of the tonal patterns, independently of the tonal specification of each one of its components.

The insertion of borrowed words in Maninkakan respects also the patterns defined by the language, as illustrated below.

2.5.b. TONAL SPECIFICATION OF THE BORROWINGS

From Arabic:	Qabr	→	kábúru	“tomb”
	Baraka	→	báráká	“blessing”
	Sabab	→	sábábú	“cause, reason”
	Salat	→	sàlátú	“prayer”
From French:	banque	→	bánkí	“bank”
	allumette	→	àlímétí	“matches”
	cigarette	→	sikéréti	“cigarette”
	cuisinier	→	kùsùnjé	“cook”

As one can see, the loan words from Arabic and French are integrated in Maninka with a L or LH pattern.

Let's conclude on tones by highlighting the fact that as in Mawukakan, the initial Low of a /LH/ pattern in Maninkakan will be attached to the first or first two syllables of a tri-syllabic word, depending on the word's second consonant. For example, the words /wòtóró/ "cart", /fòròtó/ "pepper", and /wòròtó/ "cobra" contain both an /-r-/ surrounded by two identical vowels, and have the same tonal specification (/LH/). But while the initial L of the tonal pattern attaches only to the initial syllable of the first word, with the H therefore linking to the two last syllables to give [wòtóró], in the second and third words, the initial L attaches to the two first syllables, giving [fòròtó] and [wòròtó]. It appears here clearly that an obstruent like /t/ blocks the tone spread, while the liquid /r/ cannot.

The length of the word is important in Maninkakan, and nouns of more than two syllables can attract some complexity at the tonal level.

3 HOW TO USE THE DICTIONARY

3.1 Structure of the dictionary

The dictionary is trilingual, with Maninkakan as target language, and English and French used as glossing languages. In the Toolbox fields listed below, the French markers are distinguished by adding 'fr' to the end of the English field markers.

The dictionary is provided in two formats, Toolbox and XML. The 'Toolbox' program is a version of the widely used SIL 'Shoobox' program, adapted to display Unicode. Toolbox can be downloaded for free from

http://www-01.sil.org/computing/catalog/show_software.asp?id=79

Under the Toolbox format, the fields for each entry are the following, with the hierarchy indicated by indentation:

- \x Headword (phonemic tones are marked);
 - \t Tonal pattern;
 - \c Part of speech;
 - \d English definition;
 - \dfr French definition;
- \e Example(s) of the usage of the Maninkakan word in context;

`\g` English translation of the Maninkakan example;
`\gfr` French translation of the Maninkakan example;
`\l` Morphological composition;
`\lg` English translation of the morphemes of the compound;
`\lgfr` French translation of the morphemes in the compound;
`\v` Variant form;
`\s` Synonym;
`\x` cross-referencing with related word;
`\m` miscellaneous;
`\mfr` divers (= `\m` field in French);
`\mi` Example to illustrate a specific usage;
`\mig` English translation of the example;
`\migfr` French translation of the example.

While the first four fields are obligatory, all the others are optional. Multiple definitions are given for words with multiple senses. Collocations (proverbs, sayings, riddles etc.) are introduced in the `\m` field, and illustrated where necessary. An XML version of the Toolbox dictionary was produced by the use of Toolbox's export to XML feature, and manually adding a declaration at the top identifying the schema. The schema should be self-documenting.

3.2 Morphology

As the Manding languages in general, Maninkakan is largely an isolating language, with very little morphology. However, there are few inflectional suffixes which attach to nouns:

-́ 'definite' [the definite marker is represented by an H tone attached to the last vowel of a noun]

-lu 'plural'

-lè 'focus'

-bàà 'yes/no question marker' [a special intonation can be substituted to this marker]

-nìn ‘this’ [demonstrative morpheme]

In this list, the demonstrative morpheme /nìn/ “this” is not a dependent morpheme, and appears in different contexts in the language. Note also that /nìn/ ‘this’ and /-lè/ ‘definite’, which appear directly suffixed to the noun, are exclusive. When they are used together in a noun phrase, the suffixes listed here have to respect a certain order.

For example: kú ‘yam’ can appear specified by the following list of suffixes as shown below:

/kú₋-lù-lè-bàà/ → [kúlùlèbàà?] ‘yam-Def-pl-foc-Q’ meaning “are you talking about THE YAMS?”

There is a small amount of derivational morphology on verbs. For example, the postposition ró ‘in’ incorporates into the verb tè ‘to clean’ to give the verb róctè ‘to clean the inside of something’; and it incorporates into the verb mìnà ‘to catch’, in róminà ‘to grab, pull apart’. Similarly, the postposition mà ‘on, against’ incorporates into the verb tè ‘to clean’ to give the verb màtè ‘to clean a surface’, and into the verb bírín ‘to bend’, giving màbírín ‘to bend over’.

Compounding is productive in Maninkakan, but the meaning is not necessarily compositional. Compounds are treated as headwords; the morphological breakdown is indicated in the \l fields, and the individual morphemes are glossed in the \lg and \lgfr fields. For example, the word sánmákúdún “airplane” is composed of the morphemes /sán/ “sky”, /mà/ “on”, and /kúdún/ “vehicle”.

3.3 Abbreviations and special signs used in the dictionary

The following abbreviations are used for parts of speech:

Adj: Adjective

Adj/N: Adjective or noun (ambiguous)

Adv: Adverb

Aff: Affix

Aux: Auxiliary verb

Conj: Conjunction

Der: Derivative suffix

Det: Determiner

Excl: Exclamation

Ideo: Ideophone (there are noun, adjective, adverb and intransitive verb ideophones, which are coded as Ideo_N, Ideo_Adj, Ideo_Adv, and Ideo_Vi respectively)

Interj: Interjection

N: Noun or proper name

Num: Number

Ord: Ordinal

Poss: Possessive

Post: Postposition

Pro: Pronoun

Q: Quantifier

Vi: Intransitive verb

Vt: Transitive verb

Wh: Wh-word (question word)

3.4 Encoding

Both the Toolbox and the XML versions of this dictionary use the Unicode (UTF-8) encoding. The Doulos SIL Unicode font works well, as do a number of other fonts displaying ASCII, Latin-1 (U+00A0 through U+00FF), Latin Extended-A (U+0100 through U+017F), Latin Extended B (U+0180 through U+024F), IPA extensions (U+0250 through U+02AF) and Combining Diacritic Marks (U+300 through U+36F).

3.5 Files

Maninkakan_Lexicon: Toolbox version of dictionary

Maninkakan_[Doulos_SIL|Arial].prj: Toolbox control file using either Arial or Doulos SIL fonts

Default.lng, English.lng, French.lng, vernacular.lng, Mawu.lng: Toolbox language definition files

Mawutype1.typ: Toolbox database file

Maninkakan_Lexicon.xml: XML version of dictionary

Maninkakan_Lexicon.dtd: schema for Maninkakan_Lexicon.xml

4 References

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