

Vowel length in the Kakabe language

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Kakabe belongs to the Mokole group, the closest group to the Manding branch of the Mande family. It is spoken in a number of villages situated on the Futa-Jallon plateau in Guinea. No description of this language is available so far. The data represented in this paper was collected during a field trip to Guinea in January-February 2008¹.

This paper deals with the nature of the vowel length in Kakabe. Both short and long vowels are attested in this language but, phonologically, the functional relationship between them depends very much on the context.

There are two formal factors that determine the context relevant to the vowel length: the position of the syllable with the vowel in question within a morpheme and the number of syllables which the morpheme contains. Three following positions will be considered in this paper:

- I. Non-final syllables (in not monosyllabic morphemes).
- II. Final syllables (in not monosyllabic morphemes).
- III. Syllables of monosyllabic morphemes.

I. Non-final syllables (in not monosyllabic morphemes)

Firstly we will consider non-final syllables in disyllabic morphemes.

In the first syllables of a disyllabic morpheme, the frequency of long vowels is comparable to that of the short vowels. Though we have not found any minimal pair, nevertheless, it is quite certain that there is no complementary distribution between the short and the long vowels. This can be seen if we compare the following words:

wáati ‘time’ – *wáli* ‘work’;
sìina ‘co-wife’ – *sila* ‘copper’;

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sòɔrin ‘fingernail’ – *sòri* ‘to scoop’;
fɔɔfi ‘to breathe’ – *fɔɔdi* ‘to promise’;
nèene ‘mother’ – *nège* ‘iron’;
sòɔsɔ ‘to retort’ – *sòtɔ* ‘to get’;
mòɔni ‘porridge’ – *mòne* ‘sadness’

The length of a vowel in the first syllable does not correlate with the grammatical characteristics of a word: both short and long vowels may occur within both nouns and verbs.

A few words can be said especially about polysyllabic morphemes. Generally, it is not very typical of Kakabe morphemes to consist of more than two syllables; the most frequent structure of a morpheme is disyllabic. My data includes only a limited number of polysyllabic morphemes: 68. This data, although insufficient for any definitive judgment, still allows the tracing of a tendency concerning the vowel length. It turns out that all polysyllabic morphemes that have maintained a long vowel in non-final syllables are Pulaar loans, for example: *bíniiri* ‘bottle’; *fínkaari* ‘gun’; *gàláadi* ‘horn’. Therefore, it is atypical for original Kakabe words consisting of more than two syllables to have long vowels in non-final syllables.

It is worth mentioning that this assumption concerns morphemes and not words: it is not unusual for a polymorphemic complex consisting of more than two syllables to maintain long vowels, as long as it includes a disyllabic morpheme with a long vowel. For example, this happens when a prefix is added to a verb with a long vowel, cf.: *mòɔmɔ* ‘rub’ – *ma-mòɔmɔ* ‘rub the whole surface’; *ta-mòɔmɔ* ‘rub again’; *la-mòɔmɔ* ‘make rub’, etc.

II. Final syllables in non-monosyllabic morphemes

In the final syllable of a basic form of the word, there is no opposition between short and long vowels: only short vowels occur in that position, for example: *féle* ‘to look’, *kúlle* ‘animal’; *sìisi* ‘smoke’.

In a noun, a long vowel can occur in the final syllable when an article is attached to it, for example: *jùlú* ‘rope’+ ART → *jùléè*; *sità* ‘baobab’ + ART → *sitàà*, cf. however: *jínna* – *jinnà* ‘spirit’.

The analysis of the data shows that the vowel lengthening in disyllabic words in combination with the article is determined only by the tone class of the word (like the majority of Manding and Mokole languages, Kakabe has two tone classes; in Kakabe they are “rising”, LH, and “high”, HH):

LH class – the final vowel is lengthened: *dònsó* – *dònséè* ‘hunter’ *kùrú* – *kùréè* ‘stone’;

‘I have taken two calabashes.’

The same for high-tone words:

n bá' táà la-bitá 50, **100**
 1SG RES fire –ART CAUS- inflame ‘I have set fire’

n bá' táa fila la-bitá 70, **120**
 1SG RES fire two CAUS- inflame ‘I have set two fires’.

táà _____ bá' bitá **110, 60**
 fire-ART RES inflame ‘The fire has lit up’.

táa fila bá' bitá **110, 60**
 fire two RES inflame ‘Two fires have lit up.’

As we can see, the vowel in question is about twice as long as a short vowel in the same phrase.

It is worth mentioning that when a monosyllabic noun is integrated into a compound noun, it preserves its length; for example:

jáafyɔn ‘blind man’, from *jáa* ‘eye’+ *fyɔn* ‘blind’,
jáakolofin ‘pupil (on the eye)’, from *jáa* ‘eye’ + *kólo* ‘kernel’ + *fin* ‘black’,
jíilɔɔ ‘thirst’, from *jíi* ‘water’ + *lɔɔ* ‘wish’.

Vowel length in monosyllabic verbs is more variable than in the nouns. It correlates with the form of the verb. Three forms of the verb were considered in this relation:

1) the root form, in the constructions where tense and aspect meanings are expressed not by a suffix, but by a special function word – the predicative marker, which stands next to the subject;

2) *-nden* participle;

3) *-ta* participle.

The vowel length of the root form is rather unstable: the vowel can be either short or semi-long (about 1.5 times longer than a short vowel in the same phrase), and, more rarely, it is long (twice as long as a short vowel), for example:

í lá vélo dí n bólo 50, 65, **45**
 2SG POSS bicycle give 1SG hand
 ‘Give me your bicycle’.

Vowel length in the Kakabe language

í n' à kó fén tò 120, **85**, 55, 55
2SG PURP he give thing in
'Give him something'.

à bí sígè fǝ lá 50, 50, 60, 60, **100**, 60
3SG IPFV song.ART talk IPFV
'He is singing a song'.

It is important that such variation is characteristic of all verbs, thus none of them can be identified as having a short or a long vowel in contrast to other verbs. Here is a phrase which has been registered several times pronounced by the same spaker, and the values of vowel length in three pronunciations:

à bá' nàa kúnun
3SG RES come yesterday
'He came yesterday'.

- 1) 40, 70, **60** – short,
- 2) 50, 70, **95** – semi-long,
- 3) 50, 60, **110** – long.

Nevertheless, the semi-long variant should be considered as the main one, because it is more frequent than both the short and the long ones.

When a verb has the participle suffix *-nden*, then the length is more stable; the vowel is always 1.5 or 2 times longer than a short vowel:

à fǝ-nden kúnun 50, **90**, 50
3SG tell-PC yesterday
'It was told yesterday'.

Séeku tó-nden bóŋ-è lá 80, 40, **100**, 50
Seku leave-PC house-ART in
'Seku was left at home'.

Músa dí-nden kúnun 50, 60, **80**, 50
Mussa cry-PC yesterday
'Mussa cried yesterday'.

The vowel of a monosyllabic verb stem has the same length when it is followed by the particle suffix *-ta*: it is always longer than a short vowel, and sometimes it is essentially longer:

à kò-ta kúnun 50, 100, 60
3SG wash-PC.PRF yesterday
'He was washed yesterday'.

Séeku kó-ta fén tò 90, 50, 80, 50
Seku give.away-PC.PRF thing in
'Seku was given something'.

Sáakuè lá-ta yán néto 100, 60, 100, 50
bag-ART put-PC.PRF this.place in
'The bag was put here'.

Just like in the nouns, vowel length in monosyllabic verb is not distinctive. All verbs consisting of one syllable have a semi-long vowel. The length of this vowel may vary, but this should also be regarded as a characteristic trait of monosyllabic verbs on the whole.

As for monosyllabic words of other parts of speech – conjunctions, predicative markers, postpositions, interjections, adverbs², their number in our data is too small to draw any generalization. It should be noted however that almost any such word has a short vowel, without any optional or contextual variation of the length, for example: *bí* 'today'; *kò* 'in order to' (conjunction); *fě* 'with' (postposition).

But there are two conjunctions with a long vowel, and the length of its vowel is stable: *háa* 'up to' and *káa* 'or'. Still, it is worth mentioning that both these words stand out by their phonetic realization: they excel in both the tone contour of a phrase because their tone is super-high, and in length because their vowels can be not only long but even super-long:

má sí géle háa má nàa-jé-è lé ní bó 100, 50, 100, 90
1PL IRR laugh until 1PL eye-water-ART FOC PURP go.out
'We will laugh until we'll cry.'

² The vowel length in monosyllabic adjectives is not considered in this paper, for this would require a study of the structure of the noun groups in Kakabe, which is yet a task for the future.

í dɛ̀ŋɔ̀gè bí bóɲè lá, káa béle ɲó néto? 100, 50, 50, 80
2SG friend.ART be house-ART in or COP.NEG this in
'Is your friend at home or not?'

í sí pántalɔ̀ɲ-è kò, káa í sí dòriké-è kò bútuŋ? 250, 50, 60
2SG IRR trousers-ART wash or 2SG IRR shirt-ART wash first
'Will you first wash the trousers or the shirt?'

It is not impossible that the vowel length of these conjunctions is of an expressive, rather than a phonological, character.

Additionally, there are two predicative markers, *tée* (negative marker of habitualis) and *máa* (negative perfective marker), which also have a long vowel:

í tée ńón í dòn ná 50, 110, 50
2SG NEG.IRR be.able 2SG dance in
'You cannot dance'.

à máa nàa kúnun 60, 110, 90
3SG NEG.PRF come yesterday
'He did not come yesterday'

Interpretation

We have considered three specific types of vowel length attached to different positions within a morpheme. In each position the vowel length is subject to different rules and has a different phonological status.

The contrast "short vs. long vowel" has a status of a phonological opposition in its strict sense only in non-final syllables of a morpheme. In this position, no morphemic boundary inside the long vowel is possible, which is a strong argument to consider it as a single phoneme and not a combination of two identical phonemes.

As for the final syllable of a morpheme, generally, only a short vowel can occur in this position. Consequently, the vowel length opposition is not relevant here. Such a constraint is also attested in other Mande languages, for example in Bamana and Soninke [Creissels 1994: 49].

A phonetically long vowel does, however, occur in the final syllable of a definite noun, it is always accompanied with a special tonal contour. But the phonological status of this length is different from that in a non-final syllable. One possibility to define its status is to consider the word-final long vowel as a combination of two vowels. We can assume that there is a morpheme boundary

going just inside the long vowel – that is, the boundary between the root of the noun and the article, and a biphonemic interpretation establishes itself.

However, as was shown above, not every vowel with an article has a long final vowel. So, it is not the article itself that causes the lengthening. This situation also puts under question the existence of a morphemic boundary between the root of the noun and the article in the plane of expression.

As far as this lengthening is not of lexical or grammatical nature, but belongs rather to the plane of expression to which the tone contour belongs, the long vowel appearing in the final syllable should be interpreted as a long allophone of a vowel in the final syllable. It is true that the allophonic interpretation is relevant only if we consider the three positions separately. Otherwise, we would have to equate the phonetically long vowel in word-final position with the phonologically long vowel of the non-final position. However, the distinction between different positions in Kakabe seems of higher importance for the phonological analysis of this language, which justifies the approach assumed in the current paper.

In any case, independently of the approach that we decide to follow, there remains the fact that the contrast “short vs. long vowel” is phonologically irrelevant in the final position, and a phonetically long vowel in the final syllable of definite nouns correlates with a specific tonal contour.

The third type of vowel length is attested in monosyllabic morphemes. Let us consider first the two principal parts of speech, the verb and the noun. Both short and long vowels are attested in this position, but the contrast between short and long vowels does not distinguish lexical items (unlike the non-final short and long vowels), but rather grammatical classes of words, i.e. parts of speech. The length of the vowel in the only syllable characterizes a class on the whole, not each single representative of it. Thus, all nouns always have a long vowel if they consist of one syllable. A vowel in a monosyllabic verb is shorter than in a noun; it is most often semi-long, but it may vary to some extent. So, the function of the length contrast in this case can be defined as classifying.

To illustrate the distinctive power of vowel length contrast in monosyllabic morphemes, let us consider the following minimal pairs (a double letter stands for a long vowel, and the sign “:” renders a semi-long nature of the vowel):

Kó: ‘to offer’ (verb) – kóó ‘back’ (noun).

Tá: ‘to go away’ – táa ‘fire’ (noun).

As for the other parts of speech, their scarce number in our data does not allow us to make any certain conclusion about the status of vowel length. We

have no monosyllabic postpositions or adverbs with a long vowel; all of them have only short vowels. But there are two conjunctions and two predicative markers with long vowels apart from all other conjunctions and predicative markers with short vowels. So, apparently, in this case the phonological opposition of length is relevant.

One more question concerning vowel length in monosyllabic words is how to interpret phonologically the “semi-long” vowels in monosyllabic verbs. Does the expression “semi-long” have any phonological value at all in this case? This term would be justified if there were an opposition in vowel length with three members: long vs. semi-long vs. short vowel. The semi-long vowel of the verb does contrast with the long vowel of the noun, but the existence of the third member of the opposition is rather doubtful, because we can not claim with certainty that there is any part of speech which has only short vowel when it is monosyllabic. This question requires further data and examination.

There are therefore, in relation to the vowel length in Kakabe, three positionally conditioned subsystems, in each of them the length opposition has a different status and is operated by different rules.

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