

## 0. Preface

This phonological sketch is intended to reveal the basis for the orthography currently in use for the Kuo language. Points of particular interest in regard to orthographic conventions chosen are the restricted distribution of non-initial consonants (see 3.2 and 3.3), the range of vowel sequences (4.2), and tone patterns (5.)

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## 1. Location and Sociolinguistic Factors

The Kuo language is spoken by approximately 10,000 persons, the majority residing in the cantons of Mbouroum and Pao of the Baibokoum Subdistrict, Logone-Oriental Province, Republic of Chad. Other significant numbers of Kuo reside in Cameroon, both in the department of Mayo-Rey and in and around the city of Garoua, Northern Province.

Many Kuo speakers are to some degree multi-lingual. Their use of language reflects the extent of their contacts with neighboring language groups. At times the direction of the borrowing is not clear, but Kuo does share a number of common lexical items with Laka (a dialect of Sara-Ngambay), Nzakmbay (a closely related language spoken to the south of the Kuo region), and Fulani (for the Kuo of Cameroon).

Within the group of related languages collectively known as Mbum the sociolinguistic situation is sufficiently complex to require further, in-depth study. The results of preliminary research point to the existence of a dialect chain. Further survey work will be required to clarify the status (distinct language vs. dialect) and give direction as to how these closely related systems might be standardized.

One practical concern which arises is that linguistically similar phenomena be represented consistently in each of the related languages. In Cameroon, guidelines are supplied by the ALPHABET GENERAL (Yaounde, 1979). In establishing the Kuo orthography we have attempted to follow principles of the ALPHABET GENERAL, particularly as they were applied to Karang (Ubels, 1986). Likewise, after a comparison of Kuo-Nzakmbay-Karang wordlists and a study of the differences among the Nzakmbay orthographies already in use (Glidden, 1986), we have encouraged revision of the Nzakmbay orthography. Our goal is to see a person who has learned to read in one language be able to transfer this skill to other related languages thus multiplying the amount of reading material available to him.

This transfer of skill has already been observed in the Canton of Mbouroum where Kuo speakers who had participated in the Karang literacy campaign while they were in Cameroon have now returned to Chad and are able to read Kuo fluently. In addition Nzakmbay speakers who understand Kuo are finding it possible (and enjoyable) to read stories and to use calendars and songbooks written in Kuo. We anticipate more of such carry-over in the future as literature production in Kuo, Nzakmbay and Karang increases and more persons become literate.

## 2. Morpheme patterns.

Before listing the consonant and vowel phonemes of Kuo it is helpful to see their distribution within the basic unit identified for both phonological and grammatical purposes as the morpheme. The morpheme patterns provide the matrices within which the restrictions in the distribution of segments can best be seen. Since there are differences in the patterns of nouns, verbs and functors, they will first be presented separately.

### 2.1 Nouns.

Nouns evidence the following patterns:

CVC	/nâm/	'day'
CVCV	/kôro/	'squash'
CVV	/sîe/	'sun'
CVCCV	/hîŋri/	'charcoal'
CVCVC	/horom/	'mushroom'
CVVCV	/tîeîe/	'small black ant'

The first three patterns listed are by far the most common. There are examples of two additional patterns among nouns, CVCVCV and CVCVV. These, however, can be shown ← ?

## 3. Consonants.

### 3.1. Initial position.

There are 28 consonant phonemes in Kuo all but one of which are attested initially. In terms of place and manner of articulation initial consonants are presented as follows:

	labial	alveolar	velar	labio-velar
voiceless	p	t	k	kp
voiced	b	d	g	gb
stop implosive	ɓ	ɗ		
pre-nasalized	mb	nd	ŋg	mgb

nasalized	m	n	
fricative vl.	f	s	
fricative vd.	v	z	
pre-nasalized		nz	
vibrant	vb	r	
liquid		l	
continuant	w	y	h

The following lexical items illustrate initial consonant contrasts:

## Ca

paa 'to farm'	táa 'for'	kàa 'to roll up'	kpàa 'hoe'
bãa 'father'	dáa 'paternal aunt'	gári 'clothing'	gbãa 'to tan a hide'
baa 'to speak'	daa 'to make'		
mbaa 'to surpass'	ndaã 'to hit'	ngaa 'to cut grass'	mgba 'to grab'
mãa 'mother'	naa 'to take off'		
fãa 'trail'	sãa 'tobacco'		
vaa 'quickly'	záa 'grandmother'		
	nzãa 'mouth'		
vb	raa 'delicious'		
wãa 'field'	yãa 'to take'	haa 'to prohibit'	

## Cu

pùu 'wood'	tuu 'to indicate'	kùu 'wooded area'	kp
bùma 'pardon'	dùru 'clay jar'	gùba 'to cover'	gbù 'to finish'

fùm 'cooked beans'	dúu 'to pound grain'		
mbùma 'boa'	ndùo 'to enter'	ngùri 'to murmur'	ngbuda 'to open'
mùu 'to hide'	nuu 'to feel warmth of fire'		
fù 'to flower'	suu 'to escort'		
vu 'son'	zuu 'wind'		
	nzuó 'to take chaff from grain'		
vbú 'to throw'	ru 'to sow'		
	luo 'to slide'		
wyru 'to lose, get lost'	yùm 'war'	hùu 'fire'	

Though only four points of articulation are specified to maintain necessary distinctions (labial, alveolar, velar and labio-velar), differing phonetic realizations should be noted. The labial fricatives /f,v/ and the vibrant /vb/ have labio-dental articulation. The alveolar fricatives /s,z,nz/ and stops /t,d/ may have either alveolar or alveo-palatal articulation. With the stops this is particularly noted when they precede the high front vowel /i/. Thus /dikudi/ 'sand' can be pronounced as either [dikudi] or [ðikudi]. For the fricatives palatalization may be present before any vowel, the amount varying from one speaker to another. The alveolar continuant /y/ has palatal articulation.

### 3.2 Medial and Final Consonants.

The following consonants appear finally in the morpheme patterns CVC, VC, and CVCVC and are presented according to the point and manner of articulation:

	labial	alveolar	velar
stop	b	d	k
nasal	m	n	ŋ
vibrant		r	
liquid		l	

continuent                      w                      y

Final consonant contrasts are illustrated as follows:

nzôb 'person'	zâd 'place'	mák 'assuredly'
rím 'tongue'	nún 'eye'	riŋ 'name'
	ðer 'to nail'	
	sòl 'neck'	
lâw 'heart'	vây 'dog'	

The final stops /b, d, k/ are unreleased and the labial and alveolar stops have the variants [b̚] and [d̚].

There are two distinct categories of medial consonants, those occurring intervocalically and those occurring adjacent to other consonants (medial consonant clusters). The consonants which occur intervocalically are shown here followed by lexical items showing the contrasts.

	labial	alveolar	velar
stop	b	d	k
nasal	m	n	ŋ
fricative		s	
vibrant		r	
liquid		l	
continuent		y	

ríba 'theft'	sòdi 'to cut bark'	deke 'stool'
bûma 'pardon'	mbana 'fiancée'	nzaŋa 'guitar or balafon'
	písi 'to praise'	
	gári 'clothing'	
	mbâli 'elephant'	

siya 'up'

Medial consonant clusters are found in the morpheme pattern CVCCV. Consonants which can fill the first position of the cluster are limited to the following:

	labial	velar
stop	ɓ	k
nasal	m	ŋ

Here are the examples:

zoblo 'slough'	tókro 'louse
bùmra 'to erase'	yɨŋra 'to forget'

The second member of the cluster is by contrast alveolar:

	alveolar
stop	d
nasal	n
vibrant	r
liquid	l

The vibrant and liquid as second members of the cluster were illustrated above. Examples of the stop and nasal follow:

tikdi 'young woman'

baɲna 'baboon'

As can be readily seen, these positions are the most restricted and show a clear pattern of dissimilation in point of articulation.

4. Vowels.

4.1. Simple vowels.

There are seven vowels in Kuo which may fill the initial vowel position in the morpheme patterns V, CV, VC, CVC, CVCV, and CVCCV. These vowels-- /i/, /e/, /ɛ/, /a/, /ɔ/, /o/, and /u/-- are shown in the following examples:

/i/	kj 'to count'	sil 'to dawn'	iki 'to press'	tikdi 'young woman'
/e	ke 'afore-mentioned'	səl 'hearth'	seke 'to smell bad'	dəkle 'to indulge'
/ɛ/	ke 'to boil'	səl 'to lick'	səks 'suffering'	bəkle 'to examine'
/a/	ka 'he/she'	səl 'cord'	saka 'to split open'	gəbla 'divorcée'
/ɔ/	ko 'to see'	səl 'elongated'	soko 'sort of fish'	gokro 'to blacken'
/o/	so 'to toss'	səl 'neck'	sokó 'greeting'	tokro 'to frighten'
/u/	ku 'referential'	sul 'swooping motion'	suku 'ear'	bukru 'to involve'

In most cases where two vowels occur the second vowel is the same as the first as shown in the above examples. When the second vowel is different these are the possible combinations:

i, a	/yigra/	'to forget'
ɛ, u	/nzəru/	'porcupine'
a, i	/mbəli/	'elephant'
a, u	/bəlu/	'kind of bird'
o, a	/soba/	'baggage'
o, i	/sori/	'burp'
o, i	/sodi/	'bark cord'
o, ɛ	/gore/	'piece'
o, u	/kəbu/	'type of hard wood'
u, i	/buma/	'pardon'
u, a	/tumi/	'urine'

#### 4.2 Vowels sequences.

The seven simple vowels may also in two vowel sequences. For the

vowels /i/, /a/, and /u/ the sequence consists of two identical vowels. This has been analyzed in Karang as vowel length, but in Kuo patterns with the other vowel sequences as follows:

simple	sequence
i	ii
e	ie
ɛ	iɛ
a	aa
o	uo
ɔ	uo
u	uu

Here are examples of the sequences:

ri	'them'	rii	'to interest'
se	'to go'	sie	'to multiply'
ke	'to boil'	kie	'to show'
hạ	'to give'	hạạ	'to squeeze'
ko	'to see'	kùo	'to pull'
zô	'to jump'	zùo	'to stir fufu'
zu	'identification marker'	zuu	'to flow'

#### 5. Tone patterns.

Three levels of tone, high /˥/, mid (unmarked) and low /˩/ plus one rising tone /˨˨˩/ make up the Kuo tonal system. One tone is marked per morpheme.

ri 'to enter'	ri 'them'	rí 'will enter'	
wàa 'to wash'	waa 'promise'	wáa 'field'	wǎa 'jackal'
sày 'forked branch'	say 'three'	sáy 'tea'	
bòy 'tse tse fly'	mboy 'catfish'		mbõy 'millet'
kóro [kòrò] 'squash'		kóro [kórò] 'porridge'	



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kōko [kōko] 'grass fence'      kōko [kōkō] 'knowledge'

Distribution of the rising contour tone is restricted and is contrastive only on a limited number of morphemes of the structure CVV and CVC. It also carries significance as a marker of aspect in certain verb forms according to preliminary studies by Glidden.

Some ambivalence remains in the marking of only one tone on morphemes which carry two or more phonetic tones. It does not seem, however, to be necessary to mark more than the one tone since 1) no morphemes are found to be distinguished by the second tone and 2) the tone patterns group into certain fairly predictable classes. (see Camburn, n.d.)