

# THE LINGUISTIC INFLUENCE OF KANURI ON BADE AND NGIZIM\*

Russell G. Schuh  
UCLA  
and  
Yobe Languages Research Project

## 1. Introduction

For at least 1000 years, the single most dominant political force in the Bornu region (modern Borno and Yobe States of Nigeria and contiguous areas of eastern Niger) has been that of the Kanuri. This is evident in many aspects of culture, but it is particularly noteworthy in the influence of the Kanuri language on other Bornu languages.

In this paper, I will document the borrowing of Kanuri words into Bade and Ngizim, two closely related languages of the Chadic family spoken in Yobe State. The nature of the Kanuri loanwords in Bade and Ngizim suggests that although Kanuri words continued to enter Bade and Ngizim even into the 20<sup>th</sup> century, the period of heaviest borrowing was probably during the 16<sup>th</sup> and 17<sup>th</sup> centuries, before Kanuri itself underwent a number of linguistic changes and before the Bade and Ngizim speaking areas became geographically separated.

## 2. The Languages

**2.1. Kanuri.** Kanuri is a language of the Saharan Branch of the Nilo-Saharan family (Greenberg 1966). Though it is now the dominant language of northeastern Nigeria and eastern Niger west of Lake Chad, the languages most closely related to it are spoken north and east of Lake Chad, notably Kanembu, Teda, and Daza. Kanuri is dialectally fairly diverse. In this paper, I will distinguish two main dialect varieties, though they themselves have internal diversity.

*Standard Kanuri* is the variety spoken in and around Maiduguri and is the variety now heard in radio and television broadcasting and seen in most works printed in Kanuri. The first modern description of this variety of Kanuri is Lukas (1937). For this paper, I have relied mainly on Cyffer and Hutchison (1990) and Cyffer (1994) for data in Standard Kanuri.

*Manga* is the westernmost variety of Kanuri, spoken in northern Yobe State and contiguous areas of southern Niger. This is the variety of Kanuri now in most direct contact with the Bade-speaking region, but one thing that emerges from the present study is that there is no evidence that Manga is the specific source of Kanuri influence in Bade or Ngizim. For information on Manga I have consulted mainly Jarrett (n.d.), which documents Manga as spoken in Niger. I worked rather extensively on Manga myself during a two-year stay in Gashua in 1973-75.<sup>1</sup> The Gashua variety of Manga seems to

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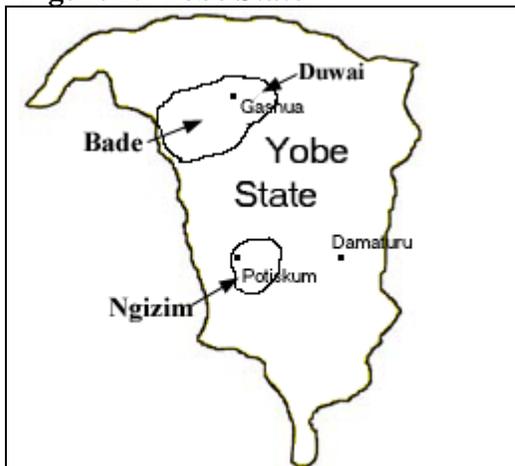
<sup>1</sup> I am grateful to Roger Blench for providing me with an electronic version of Jarrett's dictionary. My thanks to Isufu Lawan for his patience during the many hours we worked together in Gashua.

correspond in all relevant ways with the sound system and basic grammatical features of the Niger variety documented in Jarrett (n.d.).

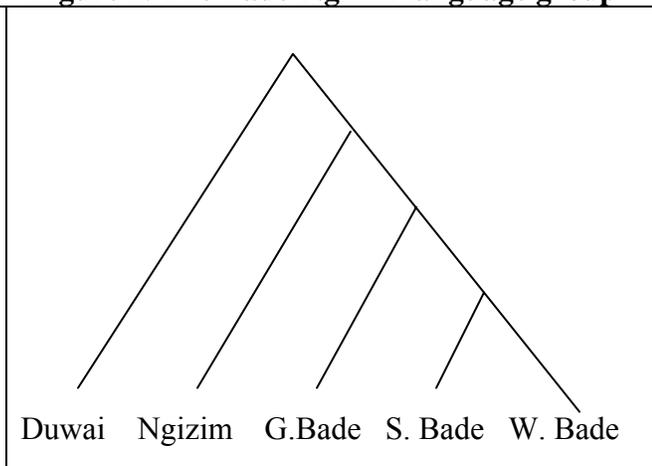
**2.2. Bade and Ngizim.** Bade and Ngizim are closely related languages of the Chadic family, both spoken in Yobe State. More specifically, they are members of the West Chadic branch (Newman 1977), the branch of Chadic that includes Hausa as well as languages of southern Yobe State and Gombe State, such as Karekare, Bole, Ngamo, and Tangale, languages of Bauchi State, such as Warji, Miya, and Zaar (Sayanci), and languages of Plateau State, such as Angas, Sura, and the Ron languages. Within West Chadic, however, Bade and Ngizim as a group are not particularly closely related to any of the languages mentioned.

The Bade-Ngizim group includes three distinct languages: Bade, Ngizim, and Duwai. Bade and Ngizim are clearly more closely related to each other than either is to Duwai. Ngizim is dialectally quite uniform, but Bade is diverse to the point that one might argue that there are several Bade “languages”. Nearly every Bade town has its distinct linguistic characteristics, but in Schuh (1981b) I present evidence for three major dialect groups: Gashua Bade (or Northern Bade), Southern Bade, and Western Bade. Figure 1 shows the location of the Bade-Ngizim languages within Yobe State, and the diagram in Figure 2 shows the internal relationships of the languages and dialects.

**Figure 1. Yobe State**



**Figure 2. The Bade-Ngizim language group**



Information on Bade Ngizim comes almost entirely from field work that I have done on these languages. In 1969-70, I spent a year in Potiskum working on Ngizim as part of a comparative Chadic syntax project.<sup>2</sup> During several weeks in mid-1974, I was able to supplement the lexical material collected four years earlier. All of this material is published in Schuh (1981a), which is the primary source for Ngizim citations in this paper. I did most of my work on Bade and Duwai in Gashua during 1973-75 while I was a Senior Research Fellow in the Centre for the Study of Nigerian Languages (Paul

<sup>2</sup> This research was supported by a US National Science Foundation grant (GS 2279, Paul Newman, Principal Investigator). Preparation of the Ngizim dictionary (Schuh 1981a) was in part supported by a US National Science Foundation grant (BNS 79-20366, Russell G. Schuh, Principal Investigator). For our special relationship in documentation of Ngizim, I owe a special debt to the late Malam Dan Boyi Kwana, to whose memory I would like to dedicate this paper, and to Malam Adamu Helman Sale.

Newman, Director), at that time a unit of Ahmadu Bello University, now housed in Bayero University.<sup>3</sup> During that period, I compiled extensive card files of lexical data from the Western and Gashua dialects, and somewhat smaller files of Southern Bade and Duwai. This paper will only cover the Western and Gashua dialects, since those are the dialects for which I have most extensive data, particularly data that includes Kanuri loanwords. The main impetus for this paper and a source of data in addition to that collected on earlier occasions is a current US National Science Foundation funded project to document five languages of Yobe State: Bade, Ngizim, Bole, Karekare, and Ngamo (see footnote \*). Lexical data for all these languages is now in lexical databases, making sorting, retrieval, and updating very easy.

### 3. Historical Background

**3.1. Early history.** Aside from vague and schematic accounts in oral tradition, there are no historical records of the people who occupied the area west of Lake Chad prior to the spread of the Kanem-Bornu empire from the east. A reasonable assumption, however, is that all the people to the west and south of Lake Chad were speakers of Chadic languages. The legendary So or Sao people were probably among these, though we have no record of what language they spoke. One piece of evidence that the builders of the Kanem-Bornu empire encountered Chadic language speakers when they arrived west of Lake Chad is the presence of Chadic loanwords in Kanuri, particularly for native flora and fauna.<sup>4</sup>

#### (1) Chadic loanwords in Kanuri

‘crocodile’	Kanuri <b>karam</b>	Hausa <b>kadà</b>	G.Bade <b>əgdəm</b>	Bura <b>ngələm</b>
‘Nile monitor’	Kanuri <b>gùjèn</b>	Hausa <b>guzà</b>	G.Bade <b>gèzàn</b>	Bura <b>gàdzà-gàdzà</b>
‘baobab’	Kanuri <b>kuwà</b>	Hausa <b>kūkà</b>	G.Bade <b>kukwau</b>	Bura <b>kwàgu</b>

We know that these and a number of other words have come into Kanuri from Chadic languages because they are widespread throughout Chadic, even in languages that have had no contact with Kanuri. Such words probably made their way into Kanuri as the Chadic speakers who were under Kanuri domination began adopting Kanuri as a lingua franca or even as a replacement for their own languages. Though they would have used Kanuri vocabulary for most everyday affairs, they probably continued to refer to native flora and fauna by words familiar from their ancestral languages.

**3.2. The Kanem-Bornu Empire.** The Kanem-Bornu empire under the Saifawa line of kings exercised power in the area fanning to the east, north, and west of Lake Chad from

<sup>3</sup> Special thanks go to the late Musa Gana Amshi for the many hours we spent traveling to Bade villages and for the many hours we spent working on his language. For help on the Gashua dialect, I would like to single out Muhammadu Maigari, and for help on Duwai, Ba’askare Gangawa.

<sup>4</sup> This paper uses the following orthographic conventions: **c** = IPA [tʃ]; **j** = IPA [dʒ]; **r** in WB and **ř** in Ngizim and GB = IPA [r]; **ɽ** in Kanuri, Ngizim, and GB = a retroflex lateral flap; **ə** = IPA [ɨ], i.e. a high central vowel. A macron marks vowel length, e.g. [ā]. A grave accent ( ` ) marks low tone, a circumflex accent ( ^ ) marks falling tone, high tone is unmarked. Acute accent ( ´ ) marks downstepped high.

around the 9<sup>th</sup> century well into the 18<sup>th</sup> century.<sup>5</sup> They accepted Islam in the 11<sup>th</sup> century and were the primary purveyors of Islam in the eastern part of West Africa until the 19<sup>th</sup> century. The period of greatest power was from the 16<sup>th</sup> to the 18<sup>th</sup> centuries, when the empire and its influences extended from Darfur in the east to the oases of Bilma and the Air in the north to Kebbi in the west. The empire reached its high point under the great Mai Idris Alooma, who reigned from 1580-1617. Under him and his successors, there was a substantial period of security and peace. In the words of Davidson (1965:274-275),

...although we know little of the detailed way of life of ordinary folk, we may well imagine that they made the best of these peaceful years. Farmers could work their fields in safety. Travellers and pilgrims could follow the roads without fear. Those who lived in towns and market-villages could prosper with the spread of trade that came both from everyday security and from unified rule over a wide country. There was growth of learning in the towns, and of schools in the villages.

In the 18<sup>th</sup> century, however, the power of Kanem-Bornu began to dwindle, with rebellion coming from the Tuareg in the northwest and the Jukun in the south. The jihad of Usman dan Fodio and the establishment of powerful Fulani emirates in the early 19<sup>th</sup> century saw the end of Kanem-Bornu as the single dominant political force in what is now northern Nigeria and the end of the Saifawa line of kings with the ascendance of Shehu Amin Al-Kanemi to the throne in 1846.

**3.3. Bade-Ngizim.** As with most peoples who have not exercised power and influence beyond their own region, little is known about the early history of the people who speak languages of the Bade-Ngizim group. The oral tradition of the Bade claims that the Bades originated in the town of Badr in Yemen but were driven out by the Prophet because they refused to pray.<sup>6</sup> Eventually settling in Dadigur (a town somewhat west of Geidam), the king had four sons, who founded four groups: *Ago* remained in Dadigur and became the direct ancestor of the Bades; *Muza* went north to become the ancestor of the Tuareg (= Kandin in Kanuri); *Amsagiya* went west to found the “Ngisama”; and *Buyam* (or *Dodo* in some accounts) went south to found the Ngizims (identifiable as the Ngizims of the Potiskum region). Although this tradition cannot be viewed as a factual early history of the Bade-Ngizim people, it does jibe with the obvious linguistic unity of this group (aside from the notion that the Tuareg share a direct historical connection to the Bade!). That is, if we make the assumption that linguistic similarity implies common origin, or at least a long period of shared history, we can infer that at one time the ancestors of the modern speakers of Bade and Ngizim occupied a large part of what is now Yobe State as well as western Borno State.

The map in Figure 1 shows that today Bade and Ngizim are not geographically contiguous. The Bade oral tradition above, as well as traditions of the Ngizim people themselves, claims a movement south from the original homeland, but I would suggest that the main reason for the geographical separation of Bade and Ngizim is not so much movement away from the homeland as it is replacement of Bade, Ngizim, or closely related languages by Kanuri in the area now separating the two languages, leaving two linguistic “islands” from what was once a continuous linguistic area.

<sup>5</sup> Information of the history of Kanem-Bornu comes from Davidson (1965).

<sup>6</sup> I refer here to Figgis (1936). I have come across similar accounts elsewhere.

We can be also be quite sure that languages of the Bade-Ngizim group were at one time spoken both to the east and to the west of the current Bade-Ngizim-speaking area, which is now confined entirely to Yobe State.<sup>7</sup> Among languages closely related to Bade and Ngizim, Greenberg (1966) lists *Mober*. Modern maps do not include a town or regional name “Mober”, but an old map in my possession (source unknown) showing ethnic distributions in northern Nigeria places a “Mober” group to the east of Geidam in what would now be northeastern Borno State, now an entirely Kanuri-speaking area. There are no linguistic records of the original Mober language, but Migeod (1924:109) says,

As to the tribes along the River Yobe, first [moving east to west] come the Mobber, who are largely Bedde by origin, but now only speak Kanuri, though not very purely. Nobody ever says, “I am Mobber.” He will say he is Bedde or some other tribe, or a man of some particular town, generally the latter.

Limited data from the early 20<sup>th</sup> century show that dialects of Bade or closely related languages were also spoken as late as the late 19<sup>th</sup> century at least as far west as Shira, Auyo, and Teshena, towns located in modern Bauchi and Jigawa States and entirely Hausa speaking today (Schuh 2001).

#### 4. The Data

This study is based on words that I have identified as Kanuri loans in wordlists of Ngizim and two dialects of Bade. As noted in section 2, the Bade and Ngizim data come primarily from field work that I conducted between 1969 and 1975, supplemented with ongoing work. The Ngizim data consists of around 2300 words, published in Schuh (1981a) and now entered into an electronic database. The Western Bade data consists of about 2400 items and the Gashua Bade data of about 2000 items. The Bade data is all in electronic form, so far unpublished. I have identified Ngizim and Bade words as Kanuri loans by finding the cognate items in Kanuri dictionaries. I have used Cyffer and Hutchison (1991), which documents “Standard” Kanuri, as the basic dictionary for identifying Kanuri words, but I have also relied heavily on Jarrett (n.d.), which documents the Manga dialect, in order to identify words not in found in Cyffer and Hutchison (1991), to check on pronunciation variants, and to generally verify the pan-Kanuriness of certain items. It is important to note that the words cited from the Kanuri sources are presented as a way to identify words in Bade and Ngizim as being of Kanuri origin. These Kanuri words cannot themselves be viewed as the SOURCES of the Kanuri borrowings in Bade and Ngizim. As I will indicate below, pronunciation of Kanuri loanwords in Bade and Ngizim reflects an earlier form of Kanuri which has now changed, sometimes radically, in all the modern speech varieties of people who identify themselves as “Kanuri”.

Table 1 gives rough figures to indicate the level of Kanuri borrowing found in the Bade and Ngizim data used in this study.

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<sup>7</sup> Schuh (2001) brings together essentially all references and documentation concerning now extinct languages which were, or appear to have been, members of the Bade-Ngizim group. The discussion here draws on that paper.

**Table 1. Statistics on words identified as Kanuri loanwords in Bade and Ngizim**

	App. # entries, total	# Kanuri loanwords	% Kanuri loanwords
<b>Ngizim</b>	2300	292	12.7%
<b>Gashua Bade</b>	2000	170	8.5%
<b>Western Bade</b>	2400	190	7.92%
<b>Ngizim and at least one Bade dialect</b>	2230 (average over all 3)	112	5%

These figures, though significant as a percentage of vocabulary, surely represent an underestimate of the amount of Kanuri borrowing into these languages. First, having virtually no active knowledge of Kanuri, I have identified words in Bade and Ngizim on a hit and miss basis as likely Kanuri loanwords by meaning (e.g. nearly all words in the political, legal, and religious realms come into Bade and Ngizim through Kanuri), “feel” of the word (based primarily on certain phonological or morphological cues, to be discussed below), or “accident” (I happened to run across the word while perusing one of the Kanuri sources). I have surely missed many Kanuri loanwords even in the data available to me, much less large numbers of Kanuri loans that I simply failed to collect.

Second, these figures represent only words that I have connected to specific Kanuri words in sources available to me. These counts do not include several dozen words that I have found that either “look like” Kanuri words but that I could not find in any source on Kanuri, e.g. Ngizim **lāvātu** ‘deceive’ (few native Ngizim words begin in **l-**, all Kanuri loan verbs have a **-t-** suffix, and the “abstract/legal” sense is typical of Kanuri loans), or that differ significantly from possibly related Kanuri words, e.g. Ngizim **dəvu** ‘road’ compared to Kanuri **diwàl**. On the other hand, the figures probably include a few words that did not come into Bade and Ngizim through Kanuri, esp. words shared by Hausa, Kanuri, and Ngizim or Bade. Consider, for example, Ngizim **gòdòtu** ‘thank’ vs. Hausa **gòdè**, Kanuri **gòdètə**. The original source of this word is probably the Hausa form, which Kanuri has borrowed and adapted morphologically. I take the Ngizim word to come through Kanuri, however, in part because of the medial vowel. If this had been borrowed recently from Hausa by Ngizims who were fluent Hausa speakers, there is no reason that they would not have borrowed it with the Hausa vowel **-e**. On the other hand, with a word like **kànti** ‘shop’, which is a longstanding English loan and is identical in all three languages, the path by which the word reached Ngizim is not clear. To keep things simple, I have assumed that the relatively small number of words like **kànti** come into Ngizim and Bade through Kanuri.<sup>8</sup>

## 5. Dating Kanuri Influence on Bade and Ngizim

Assuming that the linguistic influence of Kanuri went hand-in-hand with the political dominance of the Kanem-Bornu empire, the Kanuri language probably exercised continual influence on the aboriginal languages of Bornu (actually replacing many of them) for as much as 1000 years. Even into the mid-20<sup>th</sup> century, most adult male

<sup>8</sup> The influence of Hausa on the languages of Bornu is a topic that needs research. Hausa today is the source of massive numbers of loanwords in all the languages of northern Nigeria. My impression is, however, that Hausa has had a major impact on Ngizim and Bade only in the past two or three decades. Narratives I collected from middle-aged and older people in the 1970’s show very little reliance on Hausa.

speakers of Bade and Ngizim, and probably many women as well, were at least good second-language speakers of Kanuri.<sup>9</sup> I will argue, however, that the period of heaviest influence of Kanuri on Bade-Ngizim, and the period that accounts for most of the well-integrated Kanuri loanwords in these languages, was probably the 16<sup>th</sup> and 17<sup>th</sup> centuries, the period of prosperity and relative tranquility mentioned in section 3.2, when Mai Idris Aloomaa and his successors consolidated power. There are two major arguments for this claim. First, most Kanuri loanwords in Bade and Ngizim retain earlier historical forms that have been altered in the modern varieties of Kanuri used by native speakers. This means that Bade and Ngizim must have borrowed these words before they underwent changes in Kanuri. Second, as Table 1 shows, a large number of Kanuri loanwords are shared by Bade and Ngizim.<sup>10</sup> These words must have been borrowed at a time when, at the very least, Bade and Ngizim were spoken in a contiguous language area, and possibly before they had evolved into distinct languages.

**5.1. Sound changes in Kanuri.** Modern Kanuri has undergone a number of sound changes that have profoundly affected the pronunciation of words as compared to the way they were pronounced at an earlier time. The most striking changes have affected medial labial and velar obstruents. The two labial obstruents of Kanuri, /f, b/ have become [w] between two vowels or following /l, r/ before a vowel. The two velar obstruents of Kanuri, /k, g/, have become [w] between vowels when the preceding vowel was /u, o/ or before /u, o/ when the preceding sound was a vowel or the sounds /l, r/, /k, g/ have fallen together as [g] when the preceding sound was /l, r, n/ and the following sound was a vowel other than /u, o/, and /k, g/ have been lost altogether between vowels elsewhere. These sound changes are summarized in (2) and (3).

(2) KANURI LABIAL VOCALIZATION: {f, b} → [w] / {V, l, r}\_\_V

(3) KANURI VELAR WEAKENING:

- a. {k, g} → [w] / {u, o}\_\_V or {V, l, r}\_\_ {u, o}
- b. {k, g} → [g] / {l, r, n}\_\_V other than {u, o}
- c. {k, g} → Ø / V\_\_V where V ≠ {u, o}

We have independent evidence of what the original sounds were where the words were originally borrowed into Kanuri from Arabic. The table in (4) illustrates the effects of the sound changes in (2) and (3) on Kanuri as compared to the Arabic source. The examples from Ngizim and Bade show that those languages borrowed the words from Kanuri before Kanuri underwent the sound changes in (2) and (3).<sup>11</sup>

<sup>9</sup> I base this claim on observations I made in the 1960's and 70's in Potiskum and Gashua. I hope to be able to interview people from these areas in order to get a more accurate picture of the role that Kanuri played during this time, which was seeing a transition from Kanuri to Hausa as the main lingua franca of western Bornu.

<sup>10</sup> Many Kanuri borrowings found in Bade and Ngizim are also shared by the more distantly related Duwai. My materials on Duwai are more limited than those for Bade and Ngizim, so I have not included Duwai in this discussion.

<sup>11</sup> Although these words originally come from Arabic, both cultural reasons and the forms of the words in Ngizim and Bade make it obvious that the latter languages acquired the words through Kanuri, not directly from Arabic.

## (4) Examples of Kanuri changes (2-3) with evidence from Arabic

Exemplifies #		Kanuri	Arabic	Ngizim	Gashua B.	Western B.
(2)	‘trading’	sawər	safar ‘journey’	sāfə̃r	sāpə̃r	
	“Good heavens!”	sùwanà	subhāna llāh ‘majesty of Allah!’	sùbanà	subanà	subānà
(3a)	‘scissors’	mowosə̃	miqaṣ	makās	makàs	
(3b)	‘blessing’	bargà	baraka	bãrkà	bãrkà	barkan
(3c)	‘to happen’	wààtə̃	waqa‘a	wākàtu	wākàtu	
	‘time’ <sup>12</sup>	sâ	sā‘a	sâ-		sagan

On the basis of evidence such as that in (4), we can assume that Ngizim and Bade reflect an earlier Kanuri pronunciation of native Kanuri words where Ngizim and Bade have labial and velar obstruents that are absent in the modern Kanuri pronunciation. Note that Ngizim and Bade usually borrow original Kanuri **f** as **p**. In a few cases, Ngizim and/or Bade have [b] for what must have originally been \*b.

## (5) Examples of Kanuri changes (2-3) with original obstruents in Ngizim and Bade

Exemplifies #		Kanuri	Ngizim	Gashua B.	Western B.
(2)	‘well bucket’	karwi	kũrpi	kãrpi	karfin
	‘carrion’	riwà		ɽipà	rīpan
	‘hoe’	dàwi	dàbi	dàbi	dàbīn
	‘thousand’	dəwu	dəbu	dəpu	dəbu
	‘baby’	kalàwù	kũlābi		
	‘year’	bərwà		bə̃rbà	bə̃rbān
(3a)	‘cap’	jawà (Manga)	jākuwa	jākūwa	
	‘begin better’	ngalwò	ngalkò	ngalkò ɸa	ngalkò
	‘morsel of meat’	dowòl	dugùl	dəgəl	
	‘medicine’	kùrwún	kà̃rgún	kà̃rgún	kà̃rgúnən
(3b)	‘fetish’	sərgə̃	sə̃rkà		
	‘fool’	bəlgə̃	bə̃lkən		
	‘intelligence’	angəl	ankāl	ankəl	ankalón
(3c)	‘sword’	kàshaàr	kàsakā̃r	kàsakà̃r	gasakarən
	‘fool’	kàawù	kàkàbù	kàkàbù	kàkàbān
	‘sibling’	yāanà	yāgàna	yāgàna	yāgànān
	‘cotton cloth’	gàwàa	gàbàga	gàbàga	gàbàgān

<sup>12</sup> I have not found any examples where the Arabic original has “g” (actually /ɣ/). The word ‘time’ has medial /ʕ/ in Arabic, which some languages borrow as a velar. The Western Bade realization suggests that this might have been the case here. This root for ‘time’ in Ngizim is restricted to the phrase sâ-gara ‘(it’s) the time for it’.

Manga has gone a bit further with these changes than has Standard Kanuri. Standard Kanuri sometimes retains medial [g] where Manga has lost it, as in (6).

**(6) Words where velar is lost in Manga but retained as [g] in Standard Kanuri**

	Kanuri	Manga	Ngizim	Gashua B.	Western B.
‘wealth’	<b>arzəgi</b>	<b>arsiyi</b>			<b>arzəkīn</b>
‘Tuesday’	<b>tàlagè</b>	<b>tàlawù</b>	<b>Tàlākək</b>	<b>Tàlākù</b>	<b>Tàlākuwà</b>
‘week’	<b>magè</b>	<b>mawu</b>	<b>māgì</b>	<b>māgù</b>	
‘harvest season’	<b>bigəla</b>	<b>biyilà</b>	<b>bīgèlà</b>		

Dialect variants like those in (6) involving original medial velars are not uncommon. In contrast, among Kanuri loans into Bade-Ngizim with original medial labials, I have found only one word where Kanuri has an obstruent with Manga having shifted to [w] by sound change (2), viz. ‘date (palm)’ Kanuri **difunò**, Manga **dīwinò** (cf. Ngizim **dəbīnò**, Gashua Bade **dābīnāu**, Western Bade **dəbīnón**).

Manga has gone a step beyond sound changes (2-3), which weaken medial labials and velars respectively, to also weaken intervocalic /t/ to [ð]. Standard Kanuri retains [t] in such words, and Ngizim and Bade likewise have [t] in corresponding loanwords.

**(7) MANGA /t/ VOICING: t → [ð] / V\_\_V**

**(8) Examples of Manga change (6) with Standard Kanuri, Ngizim, and Bade**

	Manga	Standard Kanuri	Ngizim	Gashua B.	Western B.
‘height’	<b>dāðù</b>	<b>datè</b>	<b>dātì</b>	<b>dātù</b>	<b>dātən</b>
‘half’	<b>reðà</b>	<b>retà</b>	<b>řētâ</b>	<b>řētà</b>	<b>rētán</b>
‘antimony’	<b>samðəràm</b>	<b>santəràm</b>	<b>santəřàm</b>	<b>səntəřâm</b>	

The Kanuri sound changes that are formulated and illustrated in (2-8) suggest that weakening of intervocalic obstruents may have started in the western parts of the Kanuri speaking area and percolated eastward, where they have not (yet?) operated as completely in Standard Kanuri as they have in Manga.

At the beginning of section 5, I suggested that we can use sound changes that have taken place in Kanuri but have not affected Kanuri loanwords in Bade-Ngizim to establish the time when those words entered Bade-Ngizim. To do this, however, we need to know when the sound changes took place. The earliest records that we have from Kanuri are from Koelle (1854). Koelle worked in Sierra Leone in the mid-19<sup>th</sup> century, collecting word lists from repatriated slaves. These speakers would have all been born in the early 19<sup>th</sup> century at the latest, meaning that the data they provided to Koelle would have exemplified their languages as spoken in the 18<sup>th</sup> century. Koelle has three Kanuri word lists, referred to as “Kanuri”, “Munio” (which he says, page 10, is also called “Manga”), and “Nguru”. The “Kanuri” speaker came from a town “Magirari Bagalabe”, south of the then Kanuri capital, Ngazargamu. The “Munio” speaker came from a town “Made”, which I cannot find on maps that I have. The “Nguru” speaker came from

Nguru, the largest town immediately west of the Bade area and Manga-speaking today. The “Munio” (= Manga) and “Nguru” lists are, not surprisingly, almost identical. I will therefore refer only to the “Munio” list.

Koelle’s lists show that the sound changes in (2, 3, 7) had not advanced nearly as far as they have today, but they had already begun to affect the Kanuri-speaking area in the following ways.

- (2): /p/ > [w] in Manga, but /p/ was unchanged in Kanuri
- (2): /b/ remained in both dialects
- (3): /k/ > [g] in Kanuri and sometimes in Manga, but usually /k/ > [ɣ]<sup>13</sup> in Manga
- (3): /g/ > [g] in Kanuri, usually /g/ > [ɣ] in Manga, though there is an example or two of [g] in Manga<sup>14</sup>
- (7) Has not yet taken place, i.e. /t/ = [t] in both Kanuri and Manga

**(9) Comparison of pronunciation of Kanuri and Manga cf. 1800 vs. late 20<sup>th</sup> century**

Sound change		Koelle (1854)		Modern pronunciation	
		Kanuri	Munio (Manga)	Kanuri	Manga
(2) /p/	‘egg’	ngépèl	ngéwèl	ngəwul	ngəwəl
	‘needle’	lípèra	líwra	ɽiwulà	ɽiwərà
(2) /b/	‘navel’	dábū	dábūdi	dawu	dau
	‘friend’	sóbā	sóbā	sawà	sawà
(3) /k/	‘market’ Ar. sūq	kásugū	kásuru	kàsuwù	kàsuwù
	‘alms’ Ar. sadaqa	sádāga	sádāra	sadaà	sadaà
	‘sword’ cf. Ng. kàsakàr	káṣāgar	kátsāgar	kàshaàr	kàshagàr
(3) /g/	‘four’	dégè	dérè	degə	dewu
	‘chicken’	kúgui	kúrui	kùwí	kùwuí
	‘medicine’ cf. Ng. kàrgún	kárgun	kárgun	kùrwún	kàrwún
(7) /t/	‘new moon’	kéntāgè	kéntāṛè	kəntagè	kənḏawù
	‘child’	tátā	tátā	tadà	tàḏa

The lists in Koelle (1854) show that the sound changes that have now affected a large part of the modern Kanuri-speaking region had already begun to operate in some dialects in the 18<sup>th</sup> century. They had not affected “Kanuri proper” to the extent that they had affected Manga, but they had at least shifted original \*k > [g] in Kanuri. Since Kanuri loanwords in Ngizim and Bade retain the original [k] (see examples in 4-6), we know that

<sup>13</sup> Koelle (1854) represented [ɣ] with the symbol “ṛ”, undoubtedly under the influence of the uvular “r” of his native German. I have retained his orthography in citations, including his diacritics, whose values are unrelated to those listed in footnote 3.

<sup>14</sup> For some native Kanuri words, such as the small numbers, there is no comparative evidence indicating whether a word with Kanuri [g], Manga [g] or [ɣ], was originally \*k or \*g. I have placed these with \*g.

these words must have entered Bade-Ngizim in the early 18<sup>th</sup> century at the very latest, and probably before that time.

**5.2. The separation of the Bade and Ngizim languages and shared loanwords.** The information from Koelle (1854) in the previous section makes it clear that many Kanuri loanwords must have entered Bade-Ngizim prior to the 18<sup>th</sup> century. Information in Koelle (1854) on the Bade-Ngizim languages themselves supports this hypothesis. I will use the following reasoning:

- Modern Ngizim and Bade share many Kanuri loanwords. If these words are well integrated into the respective languages, and especially if they share phonological features that differentiate them from modern spoken Kanuri, it is more likely that the words were borrowed into the ancestral language and inherited into the modern languages than that they were borrowed separately into the individual languages and now just happen to look alike.
- Ngizim and Bade do have many words that seem to fit the criteria of thorough integration and shared phonological features that differentiate them, as a group, from modern Kanuri. Some examples have been presented in (4) and (5). There are many further examples of “everyday words” that must have replaced native words, making separate, unconnected borrowing unlikely, e.g. Kanuri **bərbə̀r** ‘dust’ (Ngizim **bə̀rbə̀r**, GB **bə̀rbə̀r**, WB **bə̀rbə̀rən**), Kanuri **fertə** ‘spread mat’ (Ngizim **pè̀rtu**, GB **pè̀rtu**, WB **pè̀rtu**), Kanuri **kalkal** ‘exactly’ (Ngizim **kalkal**, GB **kalkalà**, WB **kalkalà**).
- If we can establish a date after which the modern languages (Duwai, Ngizim, Bade) were no longer a single linguistic community, the time when most of the shared Kanuri loanwords entered the language(s) must have preceded that date.

Koelle (1854) has three word lists entitled “Bóde”, “Ngo:djin”, and “Dó:ai”. In Schuh (1975), I demonstrate that these lists represent Western Bade, Ngizim, and Duwai respectively. Koelle’s name “Ngo:djin” for Ngizim refers to the town of Ngojin, which lies several kilometers south of Potiskum and which plays an important role in Ngizim history. Making allowance for Koelle’s transcription conventions, the words in the Ngizim and Duwai lists are essentially identical to those of the respective modern languages. A number of factors suggest that Koelle’s Bóde speaker no longer had fluent control of the language, but both lexical and morphological features from the Bóde list show that he had been specifically a speaker of Western Bade. Most of the nouns have “nutation”, an **n** suffix added to all nouns in Western Bade but not elsewhere (see Schuh (1981b) and sections 7.1 and 9 below), e.g. Koelle’s Bóde **ákan**, modern WB **akán** ‘fire’ (GB **akâ**, Ngizim **akâ**, Duwai **ākà**). A number of lexical items are specific to the Western Bade area, e.g. Koelle’s Bóde **sábu**, modern WB **sábu** ‘today’ (GB **ə̀bzə̀ku**, Ngizim **gùsku**, Duwai **kə̀ftó**), Koelle’s Bóde **rápāŋ**, modern WB **rápān** ‘axe’ (GB **gawâ**, Ngizim **gawâ**, Duwai **gùwà**).

In short, Koelle’s (1854) word lists show that by the 18<sup>th</sup> century, the Bade-Ngizim group of languages had already become differentiated into what are essentially the modern languages. Assuming that this differentiation was itself a process that took at least 200-300 years, the period of a minimally differentiated linguistic community must

have been at least as far back as the 15<sup>th</sup> or 16<sup>th</sup> centuries. Assuming that the period of heaviest Kanuri borrowing was at a time when borrowed items could easily cross dialect lines and spread throughout the community, the evidence from sections 5.1 and 5.2 would place that period at about the time proposed at the beginning of section 5. This jibes with a tradition cited in Figgis (1936) that has a particularly powerful ruler, Dyagana, founding the Tagali clan around 1500. Tagali is, today, in the north-central part of the Western Bade area and at one time exercised power over most of the western section of the Bade area.

**5.3. The language of the court of Mai Bade.** The current Mai Bade, Alhaji Saleh ibn Sulaiman, is of the Gidgid clan, which traces its lineage to the mid-18<sup>th</sup> century. The Gidgid lineage became the ruling line of a pan-Bade confederation in the mid-19<sup>th</sup> century under the powerful Mai Lawan Babuje, who built the fortified city of Gorgoram in the early 1840's and was able to repulse attacks from both Hadejiya and Bornu.

From a linguistic point of view, it is of interest to note that the language of the court of Mai Bade is not Bade, but rather Kanuri. Moreover, the Kanuri spoken in the Bade court is strikingly different from both Standard Kanuri and Manga, the immediate neighboring dialect of Kanuri. Rather it is a very conservative variety of Kanuri that has not undergone the sound changes in (2, 3, 7). In 1975 I collected a few words and expressions from Duci Kura, Wazirin Bade. Compare Bade court Kanuri with Standard Kanuri and Manga:

(10)	Bade court	Standard Kanuri	Manga
‘three’	yàsku	yàkkə	yàkku
‘four’	degu	degə	dewu
‘five’	ûgu	uwù	uwù
‘going’	lètu	lètə	lèđu

We have no records concerning the specific role or roles that Kanuri played in Bade society beyond the fact that Bade has borrowed heavily from Kanuri. However, the fact that members of the Bade court speak what is essentially a 16<sup>th</sup>-18<sup>th</sup> century variety of Kanuri rather than a more modern variety of Kanuri that was probably the lingua franca in Bornu prior to the linguistic dominance of Hausa suggests that at one time the situation in the Bade area was not unlike that of England after the Norman invasion of 1066, when the court was French speaking and French loanwords flooded the English of the masses.

## 6. Adaptation of Consonants in Kanuri Loanwords

Table 2 compares the consonant systems of Kanuri and Bade-Ngizim. The Bade-Ngizim table is a composite of both Ngizim and Bade. All the languages/dialects in this group have similar consonant inventories. The main differences are the following: (1) Only Western Bade has the the laryngeal fricative distinction /h, ɦ/.<sup>15</sup> Other languages/dialects have /h/, though almost exclusively in borrowed words. (2) Only

<sup>15</sup> Southern Bade, not discussed in this paper, also retains this distinction (Schuh 1981b).

Ngizim and Duwai have /sh, zh/. There are a couple of other differences, to be covered in subsequent sections.

**Table 2. Consonant charts of Kanuri and Bade-Ngizim**

	KANURI					BADE-NGIZIM				
	Labial	Alveolar	Alveo-palatal	Velar	Laryngeal	Labial	Alveolar	Alveo-palatal	Velar	Laryngeal
Plain Stop	<b>b</b>	<b>t d</b>	<b>c j</b>	<b>k g</b>		<b>p b</b>	<b>t d</b>	<b>c j</b>	<b>k g</b>	
Glott. stop						<b>ɓ</b>	<b>ɗ</b>	<b>ʔ</b>		
Fric.	<b>f [ɸ]</b>	<b>s z</b>	<b>sh</b>		<b>h</b>	<b>f v</b>	<b>t d</b>	<b>sh zh</b>		<b>h ɦ</b>
Lateral fric.							<b>ɬ ɮ</b>			
Nasal	<b>m</b>	<b>n</b>	<b>ny</b>			<b>m</b>	<b>n</b>	<b>ny</b>		
Rhotic		<b>r</b>					<b>r [r̥]</b> <b>ɽ</b>			
Lateral		<b>l</b> <b>[ɭ]/__i</b>					<b>l</b>			
Glide	<b>w</b>		<b>y</b>	<b>w</b>		<b>w</b>		<b>y</b>	<b>w</b>	

Where the languages have the same consonant sounds, Ngizim and Bade borrow the words with the Kanuri sounds, adjusting for the changes in (2, 3, 7), which have altered medial labials, velars, and **t** in Kanuri but not in Bade-Ngizim. Bade-Ngizim has a number of consonant sounds not found in Kanuri. Not surprisingly, the sounds /**ɓ**, **ɗ**, **ʔ**, **ɬ**, **ɮ**/<sup>16</sup>, which are absent in Kanuri, rarely show up in Kanuri loanwords. Referring to the data in (5), I noted a small number of words (two in Ngizim, one each in WB and GB) where original Kanuri **b** comes out as **ɓ**. The word ‘Friday’ has **ɮ** for Kanuri **z**, Manga **j** (Kanuri **zəmà**, Manga **jəmmà**, Ngizim **dləmwâ**, GB **jləmà**, though note WB **jəmwà**). I have no explanation for these substitutions. I have found no examples of Bade-Ngizim **ɗ** or **ɬ** in Kanuri loanwords.

The labial obstruent systems and liquid (rhotic and lateral) systems of the languages differ and require special comment.

**6.1. Labials.** In the labial area, Kanuri has a contrast only between a voiceless fricative /**f**/ and a voiced stop /**b**/. This distinction is neutralized to [**b**] after **m** (**lambi** ‘need, concern’) and to [**p**] or [**b**] in syllable final position (**ajàp** ‘astonishment’, **dàptə** ‘preventing’, **səbdə** ‘Saturday’). Bade-Ngizim has contrastive voiceless and voiced fricatives /**f**, **v**/ and voiceless and voiced stops /**p**, **b**/.

Bade-Ngizim virtually always borrows Kanuri /**b**/ as [**b**] (aside from sporadic instances of [**ɓ**] mentioned above). Since Kanuri has no [**v**], virtually no Kanuri loanwords have [**v**] in Bade-Ngizim. The only case I have found is Ngizim **gadâvâ**

<sup>16</sup> In the orthographies adopted for Ngizim and Bade, /**ɬ**/ is written “**ɽ**” and /**ɮ**/ is written “**ɽ**” in Ngizim and “**ɽ**” in Bade.

‘middle’ (cf. Kanuri **dawù**). The Bade counterparts have **b** (GB **dābù**, WB **dābən**). Since Kanuri does not have [p] except as a conditioned variant of /f, b/, one would expect there to be no Kanuri loanwords in Bade-Ngizim with initial or intervocalic [p]. It turns out, however, that Bade-Ngizim realize Kanuri [f] as [p] in almost all loanwords. The explanation for this is that Kanuri /f/ is actually a bilabial fricative [ɸ]. Bade-Ngizim /f, v/ generally have labiodental articulation. For the Kanuri bilabial fricative, [ɸ], the bilabial feature overrides the fricative feature in the perception of speakers of Ngizim and Bade. In Bade dialects, the only Kanuri loanword that I have found with an [f] is the word for ‘hypocrite’ in (11c). This appears to be a word recently introduced in all the languages, since Kanuri also has [f] in this word, whereas we would expect [w] by sound change (2). Ngizim does have a few loanwords with [f] (8 words with [f] vs. 31 words with [p]). Bade regularly has [p] in these words. In (11a), I give examples of Kanuri loanwords with [p] everywhere, the most common situation (WB **f** in ‘well bucket’ is an isolated exception). In (11b) are words with Ngizim [f] but [p] in Bade. In (11c) is the one word with [f] everywhere, including Kanuri.

(11) **Examples of (original) Kanuri /f/ in loanwords into Bade-Ngizim**

	Kanuri	Ngizim	Gashua B.	Western B.
(a) ‘usefulness’	<b>faidǎ</b>	<b>payidǎ</b>	<b>paidǎ</b>	<b>paidán</b>
‘spread mat’	<b>fertə</b>	<b>pèrtu</b>	<b>pèrtu</b>	<b>pèrtu</b>
‘crime’	<b>aiwù</b>	<b>aipù</b>	<b>āyâp</b>	<b>āyapən</b>
‘Hausa person’	<b>Àfùno</b>	<b>Àpəno</b>	<b>Àpənau</b>	<b>àpənən</b>
‘good health’	<b>kələwà</b>	<b>kəlappiyá</b>	<b>kəlāpiyà</b>	<b>kəlāpiyán</b>
‘well bucket’	<b>kərwi</b>	<b>kuṛpî</b>	<b>kaṛpi</b>	<b>karfin</b>
(b) ‘face’	<b>fəská</b>	<b>fəská</b>	<b>puksá</b> <sup>17</sup>	<b>puksan</b>
‘trading’	<b>sawər</b>	<b>sāfəṛ</b>	<b>sāpəṛ</b>	
(c) ‘hypocrite’	<b>mūnafək</b>	<b>mənāfək</b>	<b>mənāfək</b>	<b>mənāfəkān</b>

(12) **Examples of (original) Kanuri /b/ in loanwords into Bade-Ngizim**

	Kanuri	Ngizim	Gashua B.	Western B.
‘good, beautiful’	<b>bəlán</b>	<b>bəlán</b>	<b>bəlán</b>	
‘dust’	<b>bərbəṛ</b>	<b>bəṛbəṛ</b>	<b>bəṛbəṛ</b>	<b>bərbəṛən</b>
‘hoe’	<b>dàwi</b>	<b>dàbi</b>	<b>dàbi</b>	<b>dàbīn</b>
‘Saturday’	<b>Səbdə</b>	<b>Səbdùwà</b>	<b>Səbdù</b>	<b>Səbduwà</b>

As noted above, Kanuri has neutralized /f/ and /b/ to [b] after /m/. Bade-Ngizim preserve the original distinction. Examples in (13a) show original \*f, examples in (13b) show original \*b.

<sup>17</sup> Note that Bade has methathesized the original medial sequence –sk- to become –ks-. Metathesis of medial consonant sequences to place a velar before another consonant is a fairly regular process in Bade that distinguishes it from Ngizim.

## (13) Examples of (original) Kanuri /f/ and /b/ after /m/ in loanwords

	Kanuri	Ngizim	Gashua B.	Western B.
(a) ‘benefit, feed’	àmbàtə	m̀pàtu	m̀pàtu	m̀pàtu
‘haste’	kàmbái	kàmpōyî	kàmpuwài	kàmpoyyà
(b) ‘concern, need’	lambo	làmbò	lâmbau	lambón
‘God exists’	Alà mbeji	Alàmbèci (a man’s name)	Alàmbèci (a man’s name)	

**6.2. Liquids (rhotics and laterals).** Kanuri, Duwai, Ngizim, and some dialects of Bade have three liquid sounds: [r, ɽ, l], i.e. a “regular” tapped [r] (pronounceable as a tap or trill), a retroflex lateralized flap [ɽ], and a lateral continuant [l]. However, the distribution is different in Kanuri as opposed to the Bade-Ngizim languages:

- Kanuri: /r/ and /l/ are both commonly occurring phonemes in contrast in all environments. The retroflex [ɽ] is an allophone of /l/ occurring before the vowel *i*. Thus, the Kanuri word **kalì** ‘pus’ is pronounced [kaɽi]. The pronunciation [kalì], with lateral continuant [l] would not be a possible Kanuri pronunciation. There are a few words in Kanuri with [ɽ] before other vowels, but these are (nearly?) all loanwords or Kanuri roots that have the [ɽ] allophone in other forms, e.g. **ɽeaɽea** ‘sifter’ < Hausa **ɽaɽiyā**, **ɽò** ‘learning’—cf. **likìn** [ɽikìn] ‘I learn’.
- Duwai, Ngizim, some Bade dialects: The phonemes /r, ɽ, l/ are in contrast in all positions. Here is a set of Ngizim words showing each of the sounds in word initial position and in syllable final position before a consonant (I write /r/ as “ř” to keep it distinct from the retroflex flap): **řàbu** ‘knock down with a blow’, **dəřgəzu** ‘squash, smash’, **ɽàkan** ‘travelling’, **gəɽgiyà** ‘measuring bowl’, **làunu** ‘look at’, **kəlbu** ‘smear on’. The “unmarked” liquid for these languages is the retroflex flap /ɽ/. The lateral /l/, though it seems to be a native sound, is rare except in loanwords (mainly from Kanuri). The tap/trill /ř/ is quite common, but its distribution is skewed. It occurs mainly in loanwords, in “phonaesthetic” words (ideophones, words representing forceful action, and a few other categories), and as an allophone of /ɽ/ before /t, d, ɗ, n/.<sup>18</sup>

The Duwai and Ngizim distribution is the original situation for proto-Bade-Ngizim.<sup>19</sup> Western and Gashua Bade have undergone the following changes:

<sup>18</sup>This distribution of /ɽ/ vs. /ř/ is almost identical to that of Hausa. The only explanation for this similarity in the rhotic system of Hausa and Bade-Ngizim is that it must be inherited from proto-(West) Chadic, even though it has been altered in one way or another in most Chadic languages (including some dialects of both Hausa and Bade). It would not be credible to propose that these rather distant linguistic relatives could have independently developed such a specific system in terms of both phonetic properties and distribution.

<sup>19</sup> Some speakers of Southern Bade, a dialect not considered in this paper, also have this pattern for liquids. Data from a dialect survey I conducted in the mid-1970’s (Schuh 1981b) show that Southern Bade speakers even from the same village, differ, some having the 3-way liquid distinction, others having only [ř] and [l].

(14) WESTERN BADE “r” NEUTRALIZATION: \*ɾ > [r̥] in all environments in all words

(15) GASHUA BADE LATERALIZATION: \*ɾ > [l] in most native words (with a small unexplained residue of \*ɾ unchanged)

The data in (16) shows liquid correspondences in Bade-Ngizim in native words. The data in (17) illustrates the pattern for borrowing Kanuri words that contain liquids. The correspondences in (17) show that when Bade-Ngizim languages have borrowed words with liquids from Kanuri, they have used the Bade-Ngizim *sounds* that most closely resembled the Kanuri sounds. In particular, the fact that [ɾ] is an allophone of /l/ in Kanuri plays no role in the way Kanuri liquids are borrowed.

(16) Modern distribution of [r, l, ɾ] in native Bade-Ngizim words

		Ngizim	Gashua B.	Western B.
(a)	*r̥ in native words	‘be wet’ ‘knock down’	r̥àdlu k̥àɾɗu	ràjlu kàɾɗu
(b)	*l in native words	‘cool off’ ‘peeking’ (id.)	layi ‘cool’ ngwàl	làyu ngwèllà
(c)	*ɾ in native words (with GB LATERALIZATION)	‘travelling’ ‘give’ ‘foot, leg’	ɾàkan bàɾu zəgəɾ	làkan bàlu əzgəl
(d)	*ɾ in native words (w.o. GB LATERALIZATION)	‘two’ ‘crowned crane’	shir̥in gəv̥àɾak	səɾən əgv̥àɾən

(17) The sounds [r, l, ɾ] in Kanuri loanwords into Bade-Ngizim

		Kanuri	Ngizim	Gashua B.	Western B.
(a)	[r̥]	‘tolerate’ ‘donkey’	raktə korò	r̥aktu k̥ōɾáu	raktu kōron
(b)	[l]	‘need, concern’ ‘dye’	lambo daltə	lámbo dàltu	lambón dàltu
(c)	[ɾ]	‘undress’ ‘Monday’ ‘blue’ ‘pocket’ ‘kind, type’ ‘farmland’ ‘insane, fool’ ‘leper’	lintə [ɾintə] lètəlín [lètəɾín] l̥iwùla [ɾiwùla] liwù [ɾiwù] jilì [jɪɾì] kəliwà [kəɾiwà] zòli [zòɾi] dəlìma [dèɾìma]	ɾintu ɾìtəɾín <sup>20</sup> ɾìpilla rìpək jəɾì kəɾìbà dèɾìma	rintu lìtəɾín     kə̀rìban

<sup>20</sup> Gashua Bade has assimilated the original initial [l] to the lateral flap [ɾ] later in the word.

<sup>21</sup> The Ngizim word, with [l], may not have been borrowed directly from Kanuri.

Loanwords that have [ɽ] in Kanuri raise issues of relative chronology of the time of borrowing and the sound changes in (14-15). It is likely that the Western Bade sound change in (14) took place after the words such as those in (17c) came into the language. Schuh (1975) argues that sound change (14) had not reached completion by the late 18<sup>th</sup> century. Koelle (1854) give **silin** for the Bóde (= Western Bade) ‘two’. Koelle was quite consistent in transcribing “r” for [ɽ] and “l” for [ɽ], i.e. Koelle’s Bóde speaker, representing Western Bade of the late 18<sup>th</sup> century, was saying [səɽən] whereas all modern Western Bade speakers pronounce the word ‘two’ as [səɽən]. If I in am correct my hypothesis that most well-integrated Kanuri loanwords entered Bade-Ngizim earlier than the 18<sup>th</sup> century, then the Western Bade sound change (14) would have affected Kanuri loanwords containing [ɽ] as well as native words.

We have no information on earlier stages of Gashua Bade. It appears, however, that Kanuri loanwords with [ɽ] probably entered Gashua Bade *after* the Gashua Bade sound change in (15). The data in (15c) shows that the [ɽ] is the regular Gashua Bade correspondence for Kanuri [ɽ],<sup>22</sup> i.e. Kanuri words, as a group, have not been affected by the Gashua Bade sound change (15). It seems unlikely that early Gashua Bade speakers would have systematically exempted Kanuri loanwards from the sound change, meaning that the sound change, which did not even take in all native words, was probably inactive by the time these loanwords entered the language. If this hypothesis on chronology is correct, the further implication is that Bade-Ngizim already had well-differentiated dialects at the time of heaviest Kanuri linguistic influence on the Bade-Ngizim group as a whole.

**7. Adaptation of Vowels in Kanuri Loanwords**

Table 3 compares the vowel systems of Kanuri and Bade-Ngizim.

**Table 3. Vowel systems of Kanuri and Bade-Ngizim**

	KANURI			BADE-NGIZIM		
	Front	Central	Back	Front	Central	Back
High	i	ə	u	i ī	ə	u ū
Mid	e		o	ē		ō
Low		a			a ā	

The most immediately noticeable difference between the vowel systems is that Bade-Ngizim languages have a length distinction in high and low vowels whereas Kanuri has no phonological vowel length distinction. Bade-Ngizim languages do not distinguish

<sup>22</sup> The only word that I have found where Kanuri [ɽ] corresponds to Gashua Bade [ɪ] is **àliyəpù** ‘turban’ (Manga **àliáwù** [aɽiáwù], Ngizim **aɽiyāpù**, Western Bade **àliyəpùn**). Ngizim has the expected [ɽ]. Western Bade, however, has [ɪ] instead of the expected [ɽ], suggesting that this word may have a history in Bade not explicable by borrowing from Kanuri into early Bade-Ngizim with subsequent direct inheritance into the modern languages.

length of mid-vowels phonologically. Mid-vowels are always phonetically long in open syllables but tend to be shortened in closed syllables (though see below for discussion of long vowels in closed syllables). Mid vowels are rare in native words, where they appear only in open syllables in roots.<sup>23</sup> Length for all vowels at the ends of words is almost entirely predictable. Mid vowels are always long, /a, i, u/ are always short except for a few determiners and pronouns in Bade, for example the Western Bade presentatives *m̂sī* ‘here he is’, *m̂sâ* ‘there he is’.

Another major distinction between the languages not evident in these tables is the status of ə, phonetically the high central vowel [ɨ]. In Kanuri, this vowel is in contrast with all other vowels in medial position, e.g. *t̂lo* ‘one’, *t̂l̄o* ‘udder’, *t̂l̄əm* ‘tongue’. Standard Kanuri also has this three-way contrast in word final position, though some dialects do not have word final ə. Words with word final ə in Standard Kanuri always seem to have word final u in Manga-cf. SK = Manga *kadi* ‘snake’, SK = Manga *kadu* ‘pursuit’, but SK *lad̄ə* vs. Manga *lad̄u* ‘Sunday’.<sup>24</sup> The most straightforward explanation is that the three-way distinction is original in all positions, whereas Manga (and perhaps other Kanuri dialects) have undergone a change \*ə > u in word final position. This issue is outside the scope of this paper, but it needs further study.

In Bade-Ngizim, the short high vowels /i/ and /u/ are in contrast only in word final position. The vowel [ə] does not appear word final. In non-final position, the three short high vowels [i, ə, u] are in complementary distribution, conditioned by the consonantal environment. Roughly speaking, only [i] appears next to /y/ (Ngizim *m̄iya* ‘mouth’), only [u] appears next to /w/ or a labialized velar (Ngizim *ɗukwâk* ‘bowstring’), and [ə] appears elsewhere. Moreover, except for word final position, all short high vowels in Bade-Ngizim are, in a sense, epenthetic because they appear only where needed to assure proper syllable structure (Schuh 1978).

**7.1. Word final vowels.** The examples in (18) show the most common outcomes in Bade-Ngizim of word final vowels in Kanuri loanwords.

**(18) Final vowels in Kanuri loanwords**

Fin.V		Kanuri	Ngizim	Gashua B.	Western B.
e	‘even, even if’	yàye	yàyē	yàyē	yàyē
	‘truth’ (f)	jirè	jir̄è	jīr̄ài	j̄or̄én
	‘load, goods’ (m)	karè	kar̄è	kar̄ài	k̄àren

<sup>23</sup> This statement applies to proto-Bade-Ngizim and most modern languages and dialects of the group. In Western Bade, the original diphthongs *ai* and *au* have all shifted to the corresponding mid-vowels *ē* and *ō*, respectively. Conversely, in Gashua Bade, all original word final mid-vowels, including those in loanwords, have shifted to the corresponding diphthongs.

<sup>24</sup> Though I have not systematically compared Standard Kanuri words ending in ə with Manga cognates, the -ə/-u correspondence holds consistently for the loanwords into Bade-Ngizim that I have looked at. A striking exception is the suffixed “definite article”. Jarrett (n.d.) gives *-d̄ə* in Nigerien Manga, though few, if any other words in this dialect end in ə. In the dialect of Manga that I studied in Gashua, the definite article is pronounced [-ɗ̄i]. This suffix is in minimal contrast with the verbal noun suffix [-ɗ̄u]. Both suffixes have ə in Standard Kanuri-cf. SK *sawàd̄ə*, Gashua Manga *sawàɗ̄i* ‘the friend’ vs. SK *sawàt̄ə*, Gashua Manga *sawàɗ̄i* ‘being a friend’.

<b>o</b>	‘it would be better’	ngalwò	ngalkò	ngalkò ɓa	ngalkò
	‘need, concern’ (f)	lambo	làmbō	lâmbau	lambon
	‘strength’ (m)	dunò		dù nau	dū non
<b>a</b>	‘hundred’	mià (Manga)		miyâ	miyà
	‘usefulness’ (f)	faidà	payidà	paidà	paidán
	‘rags’ (mass)	dìnà	dìnà	dìnà	dìnān
	‘student’ (WB m)	fùwùra	pùkùřa	pùkàřa	pùkàrān
	‘student’ (WB f)				pùkàràkon
<b>i</b>	“that’s it”	dà-ji	dàci	dàci	dàci
	‘hoe’ (f)	dàwi	dàbi	dàbi	dàbīn
	‘maize’ (mass)	masarmì	masařmì		màsarmīn
	‘poor person’ (WB m)	ngudì	ngudì	ngudì	ngudīn
	‘poor person’ (WB f)				ngudìyàkon
	‘last born’ (WB m)	gàji	gàji	gàji	gàjān
	‘last born’ (WB f)				gàjən
<b>u</b>	‘thousand’	dəwu	dəbu	dəbu	dəbu
	‘cat’ (f)	fātu	pātu	pātu	pàtən
	‘puppy’ (WB m)	kùtùru	kutəřú	kutəřu	kùtùrān
	‘puppy’ (WB f)				kùtərən
<b>ə</b>	‘height’ (f)	(SK) datə (M.) datù	dātì	dātù	dātən
	‘region’ (m)	(SK) lardə (M.) lárdù	lařdì	lařdì = lāřdu	lārdān
	‘week’ (gender?)	(SK) magə (M.) mawù	māgì	māgù	

Aside from word final ə, to which I return below, Ngizim and Gashua Bade have borrowed Kanuri words with the corresponding vowels that can appear word final in Bade-Ngizim languages—the mid-vowels are long and other vowels are short. The same is true in Western Bade for words with citation forms ending in vowels.

In citation form, all Western Bade common nouns, regardless of source, add an **-n** suffix called “nutation” (Lukas 1968, Schuh 1973/74). The form this suffix takes correlates in part with nominal gender (see section 9). Briefly, *masculine* and *mass* nouns originally ending in one of the vowels /i, u, a/ replace the vowel by long ā followed by the **-n** of nutation. The long **-ā-** in the words for ‘rags’, ‘student (m)’, ‘last born (m)’, ‘puppy (m)’, and ‘region’ has thus replaced the original Kanuri vowels. All other nouns, including *feminine* nouns ending in the vowels /i, u, a/, simply add the **-n** of nutation. For the reasons given at the beginning of section 7, when nutation is added to feminine nouns that originally ended in /i/ or /u/, the vowels are neutralized to [ə]. The **-ə-** in the words for ‘last born (f)’, ‘puppy (f)’, and ‘height’ are the result of this neutralization.

Bade-Ngizim languages allow only short **-i** in word final position in native words. One would thus expect Kanuri nouns with final **-i** to be borrowed into Western Bade with final **-ān** if masculine and with final **-ən** if feminine. This is generally not the case,

however. The most common outcome is for both masculine and feminine nouns to have final **-ĩn**, as in the words for ‘hoe’, ‘maize’, and ‘poor person (m)’. In effect, final **-i** of Kanuri nouns is treated as if it were long and is thus parallel to the mid-vowels, which remain invariant in all positions, aside from some phonetic shortening in closed syllables. The original final **-i** in **ngudiyàkon** ‘poor person (f)’ is likewise parallel to the mid vowel **-e** in inserting a glide before the feminine suffix **-akon** rather than eliding the final vowel (cf. **Badén/Badèyàkon** ‘Bade person (m/f)’). I have found only two clear cases where Kanuri loan nouns ending in **-i** have been treated as if they ended in short vowels, both terms of human relationship. One is the word for ‘last born’ in (18), the other is **kāmnān** ‘male friend of a female’, **kāmnōn** ‘female friend of a male’ < Kanuri **kamànyì** ‘my friend’.<sup>25</sup>

Words that end in **-ə** in Standard Kanuri are puzzling. In Bade, these normally fall together with nouns that end in **-u**, i.e. they either actually end in short **-u**, or, in Western Bade nouns, nunation takes the form it would take with loanwords that end in **-u** (see the respective examples in (18)). This suggests that Bade borrowed these words from a Kanuri dialect like Manga, which normally has final **-u** in words where Standard Kanuri has final **-ə**. The puzzle arises in comparison with corresponding words in Ngizim, where the final vowel is usually **-i**. There are at least two possible explanations for this situation: (1) Ngizim and Bade borrowed the words with original **-ə**, then the final **-ə** shifted to **-i** in Ngizim and **-u** in Bade; (2) Ngizim and Bade borrowed the words from different dialects of Kanuri. Neither of these explanations is fully satisfactory. The situation is rendered more murky by the fact that, unlike the consistent correspondences of final vowels of loanwords where the Kanuri original ends in /**a, e, o, i**/, Bade-Ngizim correspondences show considerable variation with Kanuri words ending in both **-u** and **-ə**. The patterns illustrated in (18) apply to the majority of available examples, but there are cases like the following: Kanuri **-u**, Ngizim and/or Bade final consonant (Kanuri **aiwù** ‘fault’, Ngizim **aipù**, but GB **āyâp**); Kanuri **-u**, Ngizim and/or Bade **-i** (Kanuri **kalāwù** ‘baby’, Ngizim **kulâḃi**, Kanuri **kəndərmu** ‘cultured milk’, GB **kəndə̃rmi**); Kanuri **-ə**, Bade **-i** (Kanuri **lādə** ‘Sunday’, GB **lādi**); Kanuri **-ə**, both Ngizim and Bade **-i** (Kanuri **bəndəgə** ‘gun’, Ngizim **bəndəgi**, GB **bəntəgi**, WB **bəndəgĩn**). The full answer to the question of how final **-u** and **-ə** of Kanuri relate to their outcomes in Bade-Ngizim, if there is a single answer, must await further study.

**7.2. Vowel length of medial vowels in Kanuri loanwords.** As a rough generalization, Bade-Ngizim languages have borrowed Kanuri word medial vowels as long vowels in open syllables and as short vowels in closed syllables. Table 4 gives raw counts from my data of all vowel outcomes in Kanuri loanwords where the Bade-Ngizim vowels match the Kanuri vowels in height and frontness/backness. (See section 7.3 for cases where loanwords have different vowel placement in Bade-Ngizim from Kanuri.)

<sup>25</sup> Western Bade has two ways of distinguishing masculine vs. feminine gender in nouns based on the same root. One way is to use the masculine or feminine forms of nunation described above. This method applies primarily to terms of interpersonal relationship (cf. the word for ‘last born’), some animal names (cf. the word for ‘puppy’). The other way of distinguishing masculine from feminine is to add a feminine derivational affix **-ako-** (cf. the words for ‘student’ and ‘poor person’). This is primarily used with nouns referring to occupation or personal characteristics. See Schuh (forthcoming).

**Table 4. Long and short word internal Bade-Ngizim vowels corresponding to vowels in Kanuri loanwords**

Kanuri sound	B-Ng sound	Open syllable	Closed syllable <sup>26</sup>
e	[ē]	17	0
e	[ě]	0	5
o	[ō]	16	0
o	[õ]	0	3
i	ī	27	4
i	i	4	5
u	ū	18	0
u	u	14	4
a	ā	116	19
a	a	70	101
ə	ə	90	

Mid-vowels in native Bade-Ngizim words appear only in open syllables and are always long. Mid-vowels in closed syllables are restricted to loanwords and ideophones and phonetic shortening is attributable entirely to the closed syllable environment.

For anyone familiar with Chadic languages, it will seem anomalous that there would be any examples at all of long vowels in closed syllables. In most Chadic languages, including Hausa, long vowels are automatically shortened if the syllable in which they appear becomes closed. This does not hold as a general statement for either native words or loanwords in Bade-Ngizim. Thus, the Western Bade native word **gāmsu** ‘he laughed’, **gāmàsən** ‘laughter’ has a long [ā] in both the closed syllable of the verb and in the open syllable of the verbal noun, and similarly for Ngizim **kàktlu** ‘he measured’ vs. **kàkatl** ‘measuring’. It is probably the case that long vowels in closed syllables are phonetically somewhat shorter than long vowels in open syllables, but in medial position, the vowel length distinction is accompanied by vowel placement differences. The long high vowels /ī, ū/ are higher and more tense than the short counterparts, and long /ā/ is very low and open whereas short /a/ tends to be centralized, often as [ʌ]. These differences in placement make it clear whether a vowel is underlying long or short, especially in the case of /ā/ vs. /a/.

Looking first at the high vowels, I believe that the situation is similar to that for mid vowels. That is, it seems that the Kanuri vowels /ī, u/ are virtually always borrowed as their long counterparts in Bade-Ngizim. Note that, in fact, I have recorded no examples of long [ū] in closed syllables. I suspect that the four examples of [ī] in closed syllables are all phonologically long but are shortened in duration in closed syllables. In other words, an apparent long/short distinction in closed syllables is merely an artifact of the way I transcribed the vowels. For example, for Kanuri (Manga) **īwullà** [ɽiwullà]<sup>27</sup>

<sup>26</sup> The figures for long vowels in closed syllables do not include long vowels preceding nunation in Western Bade (see section 7.1).

<sup>27</sup> The vowel of interest is the one in the second syllable, before the geminate **ll**. In Kanuri, this vowel has shifted to [u] because of the change of the preceding \*f > w.

‘blue’, I transcribed Ngizim **řəpilla** with a short [i] but Gashua Bade **àrəppilla** with a long [ī].

As for short [i, u] in open syllables, these seem not to be cases of short high vowels in contrast with their long counterparts, but rather they have been borrowed into Bade-Ngizim languages as conditioned variants of the neutralized medial short high vowel. For example, Kanuri (Manga) **mià** ‘100’ is pronounced **miyà** in Bade, with [i] before the glide **y**. Essentially all the examples of short [u] are in the environment of **w** or a labialized velar, e.g. Kanuri **duwàr** ‘mid afternoon’, **duwàř** in Ngizim and both Bade dialects; Kanuri **kùturu** ‘puppy’, Ngizim and GB **kutəřu** [k<sup>w</sup>utəřu], WB **kùtùrān** [k<sup>w</sup>ùtùrān]. In short, these should probably be listed together with the examples of Kanuri loanwords containing **ə**, a vowel which has no long counterpart in Bade-Ngizim.

The way Bade-Ngizim languages have borrowed medial Kanuri /a/ is more complex. There is a definite skewing toward Kanuri /a/ in open syllables being borrowed as Bade-Ngizim long /ā/ and Kanuri /a/ in closed syllables being borrowed as short /a/, but there are enough examples of long /ā/ in closed syllables and short /a/ in open syllables to require some explanation to which I return below.

In (19) are examples of all the contrastive long and short vowels in open and closed syllables. The table does not include examples of short [i, u] since, as argued above, they are not in contrast with other vowels.

(19) Examples of vowels in loanwords in open and closed syllables

		Kanuri	Ngizim	Gashua B.	Western B.
<b>e</b> → <b>ē</b> (op)	‘half’	<b>retà</b>	<b>řetâ</b>	<b>řetà</b>	<b>retán</b>
<b>e</b> → <b>e</b> (cl)	‘spread mat’	<b>fertə</b>	<b>pèřtu</b>	<b>pèřtu</b>	<b>pèřtu</b>
<b>o</b> → <b>ō</b> (op)	‘kola’	<b>gorò</b>	<b>gòrò</b>	<b>gòřàu</b>	<b>gòrón</b>
<b>o</b> → <b>o</b> (cl)	‘suffer illness’	<b>dòndìtə</b>		<b>dòndìtu</b>	<b>dòndìtu</b>
<b>i</b> → <b>ī</b> (op)	‘rags’	<b>dìnà</b>	<b>dìnà</b>	<b>dìnà</b>	<b>dìnān</b>
<b>i</b> → <b>ī</b> (cl)	‘undress’	<b>lìntə</b> [řìntə]	<b>(rəntu)</b>	<b>rìntu</b>	<b>rìntu</b>
<b>u</b> → <b>ū</b> (op)	‘strength’	<b>dunò</b>		<b>dùnau</b>	<b>dūnon</b>
<b>a</b> → <b>ā</b> (op)	‘Hausa person’ ‘height’	<b>àfùno</b> <b>datə</b>	<b>àpəno</b> <b>dātì</b>	<b>àpənau</b> <b>dātù</b>	<b>àpənon</b> <b>dātən</b>
<b>a</b> → <b>ā</b> (cl)	‘lift’ ‘ford’ ‘change’	<b>haptə</b> <b>faltə</b> <b>fältə</b>	<b>hàptu</b> <sup>28</sup> <b>pàltu</b> <b>(pàltu)</b>	<b>(hàptu)</b> <b>pàltu</b> ‘divide in two’	<b>(hàptu)</b> <b>pàltu</b>
<b>a</b> → <b>a</b> (op)	‘sword’ ‘return’	<b>kàshaàr</b> <b>kalaktə</b>	<b>kàsakâř</b> <b>kàlàktu</b>	<b>kàsakâř</b> <b>kàlàktu</b>	<b>gasakarən</b> <b>kàlàktu</b>
<b>a</b> → <b>a</b> (cl)	‘intelligence’ ‘dye’	<b>angàl</b> <b>daltə</b>	<b>ankál</b> <b>dàltu</b>	<b>ankàl</b> <b>dàltu</b>	<b>ankalón</b> <b>dàltu</b>
<b>ə</b> → <b>ə</b> (op)	‘bastard’ ‘difficulty’	<b>ngəriwù</b> <b>ngənəwù</b>	<b>ngənəpù</b>	<b>ngəřipù</b>	<b>ngəřipān</b>
<b>ə</b> → <b>ə</b> (cl)	‘dust’	<b>bərbəř</b>	<b>bəřbəř</b>	<b>bəřbəř</b>	<b>bərbəřən</b>

<sup>28</sup> The Ngizim word is used to mean ‘mate a stallion to a mare’.

Table 4 indicates 19 words borrowed with long /ā/ in closed syllables compared to 101 words with short /a/. There is nothing about the Kanuri loanwords realized with long /ā/ in closed syllables to suggest an explanation for why they have been borrowed this way. For example, as seen in (19), both Ngizim and Gashua Bade have borrowed ‘ford’ (meaning ‘divide in two’ in GB) with a long vowel but ‘dye’ with a short vowel. Ngizim has borrowed **pàltu** ‘ford’ with a long vowel but **pàltu** ‘change’ with a short vowel. These verbs are segmentally identical in Kanuri, differing only in tone. Ngizim has borrowed ‘lift’ with a long vowel whereas Bade has borrowed it with a short vowel. I leave the 19 cases of loanwords with long vowels in closed syllables as an unexplained anomaly.

Turning to realizations of Kanuri /a/ in open syllables, more than 60% come out as long /ā/ in Bade-Ngizim, but the proportion of long /ā/ to short /a/ does not show a strong enough numerical preference to dismiss the presence of short /a/ in open syllables in loanwords as an anomaly. I have not been able to find a way to account for the vowel choice with much certainty. There is, however, a correlation that looks to be greater than chance having to do with the metric qualities of words. A number of phenomena in various Chadic languages suggest that, *ceteris paribus*, these languages like to alternate heavy syllables (C $\bar{v}$  or CVC) and light syllables (CV). Newman (2000) and elsewhere has shown that Hausa has a tendency toward this “syllable weight polarity” in various morphological processes such as noun pluralization and verb pluractional formation (see the index of Newman (2000) under “syllable weight”). In so far unpublished work, I have suggested that some verb pluractional formation processes in Bade follow the same principle. Applying this principle to realization of Kanuri loanwords suggests that Kanuri /a/ would come out as long or short depending on whether neighboring syllables were light or heavy respectively.

To test this idea, I looked at all the loanwords of three or more syllables.<sup>29</sup> The following factors force syllables to be light or heavy:

- **Light:** An open syllable with the vowel  $\text{ə}$  must be light. This vowel and the conditioned variants [i] in the environment of **y** and [u] in the environment of **w** or a labialized velar do not have long counterparts.
- **Heavy:** (1) A closed syllable is necessarily heavy. (2) Open syllables with the vowels **e** or **o** are necessarily heavy, since these vowels do not have phonologically short counterparts in Bade-Ngizim. (3) Because Bade-Ngizim languages usually interpret the Kanuri vowels /i, u/ as long in medial position, syllables with these vowels in Kanuri loanwords will usually be heavy.

Application of syllable weight polarity would predict that a necessarily light syllable would call for long /ā/ in a neighboring syllable and a necessarily heavy syllable would call for short /a/ in a neighboring syllable. Examples in (20) and (21) illustrate application of this principle. The vowels of interest are boxed:

<sup>29</sup> It is questionable that syllable weight polarity would play a role in words of two syllables. Word final syllables seem to be “neutral” in terms of weight. There is a preference for long /ā/ in open initial syllables in two syllable words regardless of whether the second syllable is open or closed, but there are cases such as Gashua Bade **asàr̄** ‘late afternoon’ (Kanuri **asàr̄**) vs. **àsàr̄** ‘loss, calamity’ (Kanuri **àsar**) where Bade-Ngizim languages have borrowed the words with different vowel lengths.

## (20) Long /ā/ next to a necessarily light syllable

	Kanuri	Ngizim	Gashua Bade	Western Bade
‘village head’	<b>bálàmà</b>	<b>bəlāmà</b>	<b>bəlāmà</b>	<b>bəlāmān</b>
‘flintstone’	<b>jìnadè</b>	<b>jènādì</b>		<b>jìnādèn</b>
‘Hausa person’	<b>àfùno</b>	<b>āpèno</b>	<b>āpènau</b>	<b>āpènon</b>
‘illness’	<b>kasuwa</b>		<b>kāsuwá</b>	<b>kāsùwān</b>

## (21) Short /a/ next to a necessarily heavy syllable

	Kanuri	Ngizim	Gashua Bade	Western Bade
‘paper’	<b>kakkadè,</b>	<b>kakkadì</b>	<b>kakkadú</b>	
‘student’	<b>fùwùra</b>	<b>(pùkùra)</b>	<b>pùkàra</b>	<b>pùkàrān</b>
‘angel’	<b>màlaiyà</b>	<b>màlèkà</b>	<b>màlaikà</b>	<b>màlèkùwān</b>
‘return’	<b>kalaktè</b>	<b>kàlaktu</b>	<b>kàlaktu</b>	<b>kàlaktu</b>

There are, however, counterexamples both where short /a/ appears contiguous to a light syllable (Kanuri **kànasàr** ‘victory’, Ngizim **kànasâr**) and where long /ā/ appears contiguous to a heavy syllable (Kanuri **bàrèma** ‘farmer’, Ngizim **bârèma**). Such cases are by far the minority, but they show that syllable weight polarity is not an inviolate principle.

The question arises as to what happens when consecutive open syllables have /a/ in Kanuri. In this case, neither syllable is forced to be light or heavy. The answer is not very satisfying. It turns out that every possible outcome exists, as illustrated in (22):

## (22) Outcomes of Kanuri /a/ in consecutive open syllables

		Kanuri	Ngizim	Gashua Bade	Western Bade
<b>ā - ā</b>	‘patience’	<b>kànadì</b>	<b>kànadi</b>	(see <b>a - a</b> )	(see <b>a - a</b> )
<b>ā - a</b>	‘advice’	<b>kàalà</b>	<b>kàgalà</b>		
<b>a - ā</b>	‘chatterbox’	<b>mànàma</b>		<b>mànàma</b>	<b>mànāmān</b>
<b>a - a</b>	‘sword’ ‘patience’	<b>kàshaàr</b> <b>kànadì</b>	<b>kàsakâr</b> (see <b>ā - ā</b> )	<b>kàsakâr</b> <b>kànadì</b>	<b>gasakarən</b> <b>kànadīn</b>

Of these four possible outcomes, the last, with two short /a/’s, appears to be the most common, but in my data, there are two or more examples of each, i.e. no strong trend emerges.

To sum up, the most general statement one can make regarding vowel length is that there is a preference to borrow Kanuri vowels other than /ə/ as long. This holds of all mid-vowels, nearly all high vowels, and a sizable majority of /a/ in open syllables. In closed syllables, short /a/ is strongly preferred. For the relatively common occurrence of short /a/ in open syllables, the principle of syllable weight polarity accounts for choice of length in over half the tokens of Kanuri /a/, but the principle is violated in enough cases that it is not possible, with current knowledge and data, to come up with a fully

dependable way to predict whether /a/ will be borrowed as long or short in open syllables.

**7.3. Vowels differing in height and/or backness from Kanuri.** The vowels discussed in section 7.2 have the same height and front/back specification in both Kanuri and Bade-Ngizim, with vowel length being the added Bade-Ngizim variable. In a minority of loanwords, the Bade-Ngizim vowels differ from the Kanuri counterparts in height and/or frontness/backness. Most of these discrepancies are a result of assimilation processes in one or more of the languages. In some cases, discrepancies are probably just an artifact of transcription rather than a true difference in vowels.

By far the most common differences are among the three short high vowels /i, ə, u/, and in most of these I have transcribed [ə] in Bade-Ngizim where the Kanuri sources have [i] or [u]. Moreover, in nearly all such words, Kanuri “i” is contiguous to a palatal consonant and Kanuri “u” is contiguous to a labial, as in the examples in (23).

**(23) Vowels transcribed as [ə] in Bade-Ngizim, [i] or [u] in Kanuri**

	Kanuri	Ngizim	Gashua Bade	Western Bade
‘kind, type’	jil̩ [jiṭ̩]	jəri	jəri	
‘secret’	àsh̩r̩	àshə̃r̩	(às̩r̩)	(às̩r̩ən)
‘Hausa person’	àf̩ùno	àp̩əno	àp̩ənau	àp̩ən̩on
‘beer’	kùm̩il̩			kəm̩il̩n

A similar situation applies in discrepancies among short non-high vowels. In most such cases, I have transcribed Bade-Ngizim short [a] where the Kanuri sources have [e] or [o], and in most of these cases, Kanuri “e” is contiguous to a palatal consonant and Kanuri “o” is contiguous to a labial, as in the examples in (24). The example ‘gourd ladle’ is interesting in that Ngizim has interpreted Kanuri [e] as long /ā/, whereas Bade has interpreted it as /ē/.

**(24) Vowels transcribed as [a] in Bade-Ngizim, [e] or [o] in Kanuri**

	Kanuri	Ngizim	Gashua Bade	Western Bade
‘descendant of the Prophet’	sh̩èruw̩ù	sh̩àr̩ip̩	s̩àr̩ip̩ù	
‘Maiduguri’	Yerw̩à	Yarw̩à	Yarw̩à	
‘gourd ladle’	j̩ènyi	zh̩ànyi	(z̩èni)	(z̩èn̩ān)
‘scissors’	mow̩òs̩è	mak̩âs̩	mak̩às̩	
‘time’	lokt̩ù	lakwt̩ù	lakwt̩ù	

Cases like those in (23-24), with discrepancies on the front-back dimension, are by far the most common type of vowel “color” discrepancy. The only height discrepancy affecting any significant number of words is Bade-Ngizim [ə] in place of Kanuri [a] (six examples) or vice versa (five examples). All are in closed syllables and/or show variation across the languages as to whether they agree with Kanuri in vowel height.

## (25) Variation in the vowels /a/ and /ə/

	Kanuri	Ngizim	Gashua Bade	Western Bade
‘create’	àlàktə		kàləktu <sup>30</sup>	
‘Tuesday’	tàlagə	Təlākək	Tàlākù	Tàlākuwà
‘medicine’	kùrwún	kārgún	kārgún	kàrgùnən
‘well bucket’	kərwi	kuṛpî	kaṛpi	karfîn

A handful of examples (fewer than 10 in all) show height discrepancies between front or back vowels for which I have no explanation, e.g. Kanuri **wàrdé** ‘incense’, Western Bade **wardín**, Kanuri (Manga) **dowòl** ‘muscle’, Ngizim **dugúl**, Gashua Bade **dəgəl**.

## 8. Tones

Kanuri and the Bade-Ngizim languages are all tone languages. The tonal distinctions in all the languages are also similar, with a basic two-way distinction between level H and L tones, a fairly common falling contour tone, generally analyzed as H+L on one syllable, but the (near) total absence of a rising contour parallel to the falling contour. See footnote 4 for the tone marking system used in this paper.

Tone plays a significant lexical role in Kanuri, with many words of all major lexical categories distinguished only by tone, e.g. nouns such as **kàré** ‘spotted hyena’, **karé** ‘goods’, **kare** ‘draughts’ and verbs such as **ràptə** ‘grind’, **raptə** ‘slap’. Tone plays much less of a role in distinguishing lexical items in Bade-Ngizim. There are a few nouns distinguished by tone, e.g. Ngizim **gə̀jì** ‘thirst’, **gə̀ji** ‘handle’, but tone does not play a lexical role in distinguishing verbs. Tones of verbs are determined entirely by the interaction of tense/aspect and the segmental form of the verb.

Another difference in tonal systems between Kanuri and Bade-Ngizim lies in rules that alter tones. As far as I know, the tones of Kanuri words remain fairly stable regardless of context. Bade-Ngizim languages, on the other hand, have extensive processes of tone spreading where a tone from one syllable spreads to replace the tone of a following syllable. An account of some of these processes in Ngizim can be found in Hyman and Schuh (1974). The languages and dialects differ somewhat from each other in the way they apply tone rules, but they all have two basic processes: HIGH TONE SPREADING, which spreads the tone of a H syllable to a following syllable if that syllable does not begin in a voiced obstruent, e.g. Ngizim /**na kàtau**/ → [**na katáu**] ‘I returned’, and LOW TONE SPREADING, which operates in the environment LHH, spreading the L to the medial H, e.g. Ngizim /**gə̀ji bai**/ → [**gə̀ji bai**] ‘not a handle’ (which would be homophonous with ‘not thirst’-see the tone pair in the preceding paragraph). The effect of these tone rules is that in connected speech, the tones of words frequently differ from the tones of those words in isolation.

Despite the difference in Kanuri and the Bade-Ngizim languages in terms of the functional role that tone plays, the tones of Kanuri loanwords in Bade-Ngizim languages

<sup>30</sup> The original Arabic word began with **h**, which has been lost in modern Kanuri dialects. However, it must have been present at the time Bade borrowed the word. Proto-Bade-Ngizim had the sounds **\*x** and **\*ɣ**, still present in Western and Southern Bade as [**h**] and [**ɸ**] respectively. Gashua Bade shifted these to **k**.

show a high degree of correlation with the tones of the corresponding words in Kanuri. Of 316 non-verbs in my data set, 245 (77.5%) correlate in tone with the Kanuri counterparts.<sup>31</sup> The data in (26) give examples of each of the four possible sequences of H and L on two syllable words to show the correlations.

**(26) Tonal correlations of loanwords with the Kanuri counterparts**

		Kanuri	Ngizim	Gashua Bade	Western Bade
HH	‘well bucket’	<b>kərwi</b>	<b>kuṛpî</b>	<b>kaṛpi</b>	<b>karfin</b>
HL	‘height’	<b>datə</b>	<b>dātî</b>	<b>dātù</b>	<b>dātən</b>
LH	‘hoe’	<b>dàwi</b>	<b>dàbi</b>	<b>dàbi</b>	<b>dàbīn</b>
LL	‘rags’	<b>dīnà</b>	<b>dīnà</b>	<b>dīnà</b>	<b>dīnān</b>

I have not examined in detail the 22.5% of loanwords that do not correlate in tone to see whether there is any systematic explanation for the non-correlation. One apparent factor that appears to play a role in a number of cases is the well-known pitch depressing effect of voiced obstruents, e.g. Kanuri **dəwu** (HH) ‘1000’, Gashua Bade **dəpu** (LH) (but cf. **dəbu** (HH) in both Ngizim and Western Bade), Kanuri **bəndəgə**, (HHL) ‘gun’, Gashua Bade **bəntəgi** (LHL) Western Bade **bəndəgīn** (but Ngizim **bəndəgi**, with all H!). The tone spreading rules of Bade-Ngizim also seem to have sometimes operated to change the original tone, e.g. Kanuri **sanəm** (HL) ‘fetish’, Western Bade **sanamōn**, with the H of the first syllable spreading over the original L of the second syllable.

As noted at the beginning of this section, tone is lexically distinctive for verbs in Kanuri, whereas tone of Bade-Ngizim verbs is entirely a function of tense/aspect and the phonological shape of the verb. The result is that when Bade-Ngizim languages borrow segmentally identical but tonally distinct verbs from Kanuri, the Bade-Ngizim languages end up with homophonous verbs within a language or across languages such as those in (27). The Kanuri citation forms here are the verbal nouns, with a suffix **-tə**. The Ngizim and Bade forms are in the completive, marked by the final vowel **-u**, but other verb forms would also be homophonous for these verb pairs.

**(27) Tonally distinct Kanuri verbs as homophonous pairs in Bade-Ngizim**

K. root tone		Kanuri	Ngizim <sup>32</sup>	Gashua Bade	Western Bade
H	‘ford (river)’	<b>faltə</b>	<b>pàltu</b>	<b>pàltu</b>	
L	‘change’	<b>fàltə</b>	<b>pàltu</b>		<b>pàltu</b>

<sup>31</sup> I have counted a word final H as equivalent to a word final Falling (F) tone for purposes of counting tones as corresponding. There are no native ...LF words in Bade-Ngizim. Ngizim and Gashua Bade have ...HF as a common pronunciation. After years of studying these languages, I still do not understand the status of the final F in such words. It is far from clear that the HF sequence is really distinct from HL. The HF sequence varies with HL for some speakers and, for some words, across languages. In Western Bade, all nouns end in nunation (see sections 7.1 and 9). Nunation replaces the final tone of all nouns with H, so I have counted the tones of Western Bade nouns as correlating with those of Kanuri if tones of non-final syllables are the same.

<sup>32</sup> Ngizim distinguishes the verbs by vowel length. I doubt there is any systematic correlation of vowel length and tone. Indeed, intuitively one would expect the H tone correlate with length, not L tone!

H	‘take handful’	<b>japtə</b> (Manga)		<b>jàptu</b>	<b>jàptu</b>
L	‘braid hair’	<b>jàptə</b> (Manga)			<b>jàptu</b>

## 9. Grammatical Gender

Kanuri does not mark gender in any way. Chadic languages, on the other hand, have inherited a masculine/feminine gender system from their proto-Afroasiatic ancestor.<sup>33</sup> Originally, gender was not overtly marked on nouns, a situation that still is true for many Chadic languages that retain grammatical gender. Rather, the gender of a noun is revealed by patterns of agreement. In Bade, gender agreement shows up in personal pronouns, demonstratives, and genitive linking morphemes. Compare the differing agreements for the Gashua Bade word **mânga** ‘friend’, which can be used in either the masculine or feminine sense (see Schuh (1977) for a full description of Bade gender marking):

### (28) Gender marking in Gashua Bade

	Masculine	Feminine
‘the friend...he/she...’	<b>mânga ... acî ...</b>	<b>mânga ... atû ...</b>
‘my friend’	<b>mângā-n-â</b>	<b>mângā-tk-â</b>
‘this friend’	<b>mânga nkau</b>	<b>mânga tku</b>
‘that friend’	<b>mânga nkīwú</b>	<b>mânga tīwú</b>

Western Bade does overtly mark gender on a subset of nouns. As briefly described in section 7.1 and illustrated in (18), Western Bade adds a suffix **-n**, called “nunation”, to all common nouns in citation form. For masculine nouns that originally ended in one of the vowels /i, u, a/, nunation takes the form **-ān**, with the long /ā/ replacing the original vowel. Feminine nouns simply suffix **-n**. Thus, the masculine and feminine forms for ‘friend’ are distinct in Western Bade, viz. **mângān** (m) vs. **mângan** (f). Likewise, Western Bade overtly distinguishes gender of nouns originally ending in other vowels, e.g. Gashua Bade **təlku** ‘orphan (m or f)’, Western Bade **tərkwān** (m), **tərkun** (f). For nouns that originally ended in a consonant, Western Bade adds **-ən** to all nouns, regardless of gender, e.g. a Kanuri person of either gender is **zan** in Gashua Bade and **zānən** in Western Bade. In such cases, Western Bade, like Gashua Bade, reveals gender only in agreement patterns.

Treatment of gender in the modern Bade-Ngizim languages differs from language to language. Ngizim has completely lost gender as a grammatical category, and today has a system very much like that of English, with masculine and feminine personal pronouns, such as **acî** ‘he’ and **atû** ‘she’, agreeing with the natural gender of human and larger animal referents,<sup>34</sup> but with no gender distinctions in other areas of grammar. Unlike

<sup>33</sup> The proto-Afroasiatic system, reflected in many Chadic languages, was actually a three-way gender/number system, with nouns being masculine, feminine, or common gender plural, i.e. gender and number are not independent features. The masculine/feminine distinction in the plural in Semitic and Berber languages is clearly an innovation, not an inheritance from proto-Afroasiatic.

<sup>34</sup> For animals other than common domestic types, pronominal gender agreement is variable, with the same animal sometimes randomly referred to as ‘him’ or ‘her’ in the same story.

English, Ngizim has no neuter pronoun “it”. Interestingly, when a pronominal reference is forced for an inanimate noun, it is the *feminine* form that has been generalized. Likewise, Ngizim uses the originally feminine demonstratives **təku** ‘this’ and **tīwú** ‘that’ for all referents, singular and plural-cf. the Gashua Bade demonstratives in (28). Gashua Bade does retain a gender distinction in grammatical agreement, but choice of gender is often flexible. Nouns in Gashua Bade other than those referring to humans and larger animals are gradually sorting themselves into gender groups according to phonological form, with nouns ending in the vowels /i, u, a/ all shifting to feminine gender and all others (nouns ending in consonants or diphthongs) shifting to masculine. Thus, only Western Bade retains the gender associations for specific nouns that must have existed in proto-Bade-Ngizim.

With this background, we can now approach the issue of how Bade assigns gender to nouns borrowed from Kanuri, a language without a grammatical gender system. Not surprisingly, for humans and animals Bade assigns gender according to sex. This is revealed in the form of nunation and/or by the addition of a feminine derivation suffix **-akon**.<sup>35</sup> For some animals, gender seems to have been assigned by what “feels” right for the specific animal, as in the cases of ‘jackal’ and ‘cat’ in (29).

(29) **Kanuri loanwards with natural gender**

	Kanuri	WB Masculine	WB Feminine
‘youngest sibling’	<b>gàji</b>	<b>gàjān</b>	<b>gàjən</b>
‘sibling’	<b>yāanà</b>	<b>yāgānān</b>	<b>yāgānan</b>
‘puppy’	<b>kùtùru</b>	<b>kùtùrān</b>	<b>kùtərən</b>
‘bastard’	<b>ngəriwù</b>	<b>ngəripān</b>	<b>ngəripakon</b>
‘student’	<b>fùwùra</b>	<b>pùkārān</b>	<b>pùkàràkon</b>
‘jackal’	<b>dəla</b>	<b>dəlān</b>	
‘cat’	<b>fātu</b>		<b>pàtən</b>

There are probably other cases where gender is assigned on grounds of semantic association. For example, Bala Dagona did not know the word **māpàren** ‘boomerang’ (Kanuri **mawərə̀**) but assumed that it should be masculine gender by association with words like **rāpān** (m) ‘axe’ and other tools of masculine gender that are associated with men’s work.

For nouns referring to liquids, mass objects, or nouns that refer to entities that come in mass groups, such as **àyān** ‘fruits’, Western Bade generally has what looks like the masculine **-ān** nunation form, but such nouns take *plural* agreement in demonstratives, e.g. **aisān** ‘soil’, **aisā mdō** ‘this soil’. Loanwords of this semantic category are treated in the same way.

<sup>35</sup> As noted above, the choice of marking feminine gender by the “feminine form” of nunation or the suffix **-akon** is largely a function of the type of root involved. See footnote 25.

## (30) Kanuri loanwords treated as mass nouns in Western Bade

	Kanuri	Western Bade
‘gwava’	<b>gofà</b>	<b>gwâbân</b>
‘goods, stuff’	<b>karè</b>	<b>karen</b>
‘dust’	<b>bàrbàr</b>	<b>bàrbàràn</b>

Aside from these gender assignments on the basis of the type of referent, inanimate nouns are assigned *feminine* as the default gender, regardless of phonological shape or meaning. The examples in (31) show nouns with all possible terminations in Kanuri.

## (31) Kanuri loanwords governing feminine agreement in Western Bade

	Kanuri	Western Bade feminine
‘secret’	<b>àshîr</b>	<b>àsîràn</b>
‘height’	<b>datà</b>	<b>dātàn</b>
‘half’	<b>retà</b>	<b>rētán</b>
‘hoe’	<b>dàwi</b>	<b>dàbîn</b>
‘middle’	<b>dawù</b>	<b>dâbàn</b>
‘truth’	<b>jirè</b>	<b>jàrén</b>
‘need’	<b>lambo</b>	<b>lambón</b>

Feminine as the default gender appears to be an areal feature. Above, I noted that Ngizim, which has lost gender as a lexical feature of nouns, has generalized the original feminine demonstratives to all nouns and uses the feminine pronouns with reference to inanimates. Bole and Karekare, which are not closely related to Bade-Ngizim, have lost or are in the process of losing grammatical gender. Insofar as these languages retain originally gender sensitive morphology, it is at least as common to extend the feminine form as the masculine.<sup>36</sup>

## 10. Adaptation of Kanuri Verbs in Bade-Ngizim

Both Kanuri and Bade-Ngizim have extensive verb morphology that marks subject, tense/aspect, and ways the action of a verb is performed. Not surprisingly, the formal morphological systems are completely distinct from each other. The question thus arises as to how Bade-Ngizim languages adapt Kanuri verbs when borrowing. I have already mentioned one such adaptation in section 8 on tone. In Kanuri, tone is a lexical feature of a verb root. In Bade-Ngizim, tone is determined by tense/aspect and phonological form of the verb. Bade-Ngizim languages thus neutralize tonal distinctions of Kanuri verbs.

All verbs borrowed from Kanuri have **-t-** as the final consonant in Bade-Ngizim languages, illustrated by the examples in (32). The Kanuri citation forms are the verbal nouns, with a suffix **-tə**.

<sup>36</sup> Generalization of feminine does not apply to Hausa, which is at least a good second language, if not the first language for everyone in Yobe State. The Hausa of this area is typical of all southern and eastern varieties in progressively generalizing masculine agreement forms, even for human and animate nouns.

## (32) Some verbs borrowed from Kanuri showing –t- suffix consonant

K. root tone		Kanuri	Ngizim	Gashua Bade	Western Bade
L	‘get well’	<b>ngàtə</b>	<b>ngàtu</b>	<b>ngàtu</b>	<b>ngàtu</b>
H	‘saddle horse’	<b>kastə</b>	<b>kàstu</b>	<b>kàstu</b>	<b>kàstu</b>
LL	‘read’	<b>kə̀ràtə</b>	<b>kə̀ràtu</b>	<b>kə̀ràtu</b>	<b>kə̀ràtu</b>
HH	‘return’	<b>kalaktə</b>	<b>kàlàktu</b>	<b>kàlàktu</b>	<b>kàlàktu</b>

Bade-Ngizim languages have –t- as a native verb-deriving suffix, inherited from at least proto-West Chadic. The typical use of this suffix is to derive verbs from nouns or adjectives, e.g. Ngizim **gàrvàtu** ‘rule’ < **garvə** ‘chieftaincy’, Western Bade **ə̀tlkwàmtu** ‘act stupidly’ < **ə̀tlkùmən** ‘fool’. For a long time, I assumed that when Bade-Ngizim languages borrowed Kanuri verbs, those languages were adding their native –t- suffix to the Kanuri root to form a verb. On reflection, this is clearly incorrect. Kanuri verbs always have at least one affix, and often more than one. Moreover, Kanuri has extensive environmentally conditioned consonant alternations, such that a verb root may have a variety of phonetic forms depending on the affixes that are present. There is no simple “root” form that ever appears by itself. It would be remarkable if speakers of Bade-Ngizim languages consistently performed morphological analysis on Kanuri verbs to extract a root, then added their own suffix. It is much more likely that they have used an existing isolatable verb form, to which they have then added tense/aspect and other native inflectional morphology. An obvious choice for such an isolatable form is the Kanuri verbal noun with the suffix –t-, which fortuitously has the same shape as a native Bade-Ngizim verb forming affix. A parallel for this process of borrowing verbs is common among Hausa speakers when they code-switch between Hausa and English. It is normal to hear utterances such as **yana moving sosai** ‘he was really moving’, where the English –ing gerund, a type of nominalization, is inserted into the Hausa sentence.

Though I am sure that this is the path by which Kanuri verbs have entered Bade-Ngizim languages, it seems that speakers of Bade-Ngizim languages subsequently have reinterpreted the –t- on Kanuri verbs as the native verb-deriving suffix, to be used as a way to adapt foreign verbs in general. The most common source of modern loanwords in Bade-Ngizim is Hausa. In Hausa, verbs typically DO appear in what might be called a “root” form in most utterance types, yet when Bade-Ngizim languages borrow Hausa verbs, they add a –t- suffix, e.g. Ngizim **tàimàkàtu** ‘he helped’ (cf. Hausa **yā tàimakà** ‘he helped’), Western Bade **fùtātu** ‘he rested’ (cf. Hausa **yā hūtà** ‘he rested’). Unlike Kanuri, where a root that does not exist on its own would have to be extracted from a morphologically complex word, there are no phonological or morphological factors that would explain why Bade-Ngizim languages could not simply take a Hausa verb and apply Bade-Ngizim tones and tense/aspect marking vowel changes, e.g. **\*tài màku** ‘he helped’ (a form with completive tones and final –u), **\*tài màkan** ‘helping’ (a potential Western Bade verbal noun with nunation), etc.<sup>37</sup>

<sup>37</sup> Neighboring Chadic languages borrow Kanuri verbs with the –t- suffix but do adapt Hausa verbs by simply adding native morphology to the Hausa root, e.g. Bole **rètuwòyi** ‘he divided (it)’ from Kanuri **retə**, but **gàduwòyi** ‘he inherited (it)’ from Hausa **gàdā**, or, more likely, the verbal noun, **gādò**.

## 11. Semantic Domains of Kanuri Loanwords

The focus of this paper has been the way languages of the Bade-Ngizim group have adapted Kanuri loanwords to fit the native linguistic patterns. A thorough study of the semantic domains where Kanuri has had the greatest impact goes beyond the scope of the paper and moreover would require a larger, more systematically assembled data set than is currently available as well as study of the non-linguistic cultural interactions of the peoples involved. Nonetheless, it is worthwhile to give some indications of those areas of vocabulary where Kanuri has and has not had impact.

Kanuri has not had much impact on basic vocabulary and vocabulary in cultural areas that must have existed prior to contact with Kanuri. This is in contrast to some contact situations in this general part of Africa, most notably the influence of Hausa on minority languages, where Hausa loanwords permeate every area of vocabulary. For example, the Bade-Ngizim languages use native forms for the numbers 1-99, and Ngizim even has what appears to be a native word for ‘100’, **danamak** (Bade uses **miyà**, from Arabic, borrowed through Kanuri). Many languages of northern Nigeria now use the Hausa words for 20-90, which Hausa itself borrowed from Arabic.<sup>38</sup> There are few Kanuri loanwords in fundamental culture areas such as food preparation and consumption, building and construction, common household items (pots, gourd products, furnishings, implements such as brooms, knives, and the like), farming, hunting, and others. There are notable exceptions, such as **bəjì** ‘palm leaf mat’, a common household item, and **dàwi** ‘hoe’, a crucial farming implement, which have been borrowed into all the languages of the Bornu area, but these words stand out from generally native vocabulary in the same culture areas. Both domestic and wild animals generally have native names. The word **korò** ‘donkey’ is a pan-Bornu Kanuri loanword, but this is a late-introduced animal. An area of Kanuri influence involving domestic animals is horsemanship, where there are numerous Kanuri loanwords, e.g. **kustà** ‘colt’, **kòlòram** ‘hoof’, **sârđi** ‘saddle’ (which Kanuri borrowed from Arabic), but the general word for horse, e.g. Ngizim **dùkà**, is a native Chadic word. As for wild animals, I have suggested above that it is Kanuri that has borrowed from Chadic in some cases, not vice versa.

Bade-Ngizim languages have, however, borrowed many words that must have had native counterparts prior to Kanuri contact,<sup>39</sup> e.g. **bəlân** ‘beautiful, nice’, **bərbər** ‘dust’, **banatə** ‘to help’, **cintə** ‘to rub’, **dawù** ‘middle’, **fältə** ‘change’, **fertə** ‘spread a mat’, **jilì** ‘type, kind’, **kalaktə** ‘return’, **kalàwù** ‘infant’, **karè** ‘goods, things’ (a pan-Bornu loanword), and numerous others.

I now turn to several roughly defined linguistic, semantic, and cultural areas where the Kanuri impact is particularly notable:

“Discourse markers”: Kanuri language has had a direct impact on linguistic structure in a set of words that pervade discourse as topic markers, conjunctions, and words of similar function, e.g. **biya** ‘just, only’, **câmân** ‘it is an accepted fact that ...’, **dàji** ‘that’s

<sup>38</sup> Going back to a much earlier date, the language(s) ancestral to Hausa must have been under pervasive cultural and linguistic influence from neighboring speakers of Niger-Congo languages. For example, two well-known Niger-Congo loanwords in Hausa are **biyu** ‘two’ and **nama** ‘meat’, items where Bade-Ngizim languages retain the native Chadic roots, e.g. Ngizim **shirin** and **tlùwai** respectively.

<sup>39</sup> Since the focus here is on semantic areas rather than adaptations in form, I will cite only the modern Kanuri words.

that, OK’, **dùwô** ‘first, (not) yet’, **kùru** ‘moreover’, **ngàlte** ‘to have ever done’, **yàye** ‘even, even if’. The latter is notable in that it appears at the END of the clause, which is the expected position for a conjunction in an SOV language like Kanuri, but not an SVO language like the Chadic languages.<sup>40</sup> A remarkable related Kanuri borrowing that I have found only in a few Western Bade texts is the use of the Kanuri postpositions **...a ...a** added to each of a set of conjoined nouns, where, in Bade, they come out as the older Kanuri form **...ka ...ka**. The normal mode of noun conjunction in all Chadic languages is to use the preposition meaning ‘with’ in other contexts.

Social interaction: The area where Kanuri influence is most noticeable in everyday speech is in what can be loosely classified as “social interaction”. Among categories in this area are the following:

- greetings and interjections (**lâlê** ‘welcome!’, **kàlewà** ‘in good health’ (answer to many greetings), **dàmberàm** “amazing!”, and nouns or adjectives used to punctuate discourse, such as **bàlân** ‘good!’, **kalkal** ‘exactly’, **jirè** ‘truth, it’s true’);
- terms for humans and human character traits, some of which are related to the “interjection” category as terms of abuse (**kàmâr** ‘patience’, **kàmangèr** ‘wickedness’, **kənzəná** ‘promiscuity’, **kànjinò** ‘pity, sympathy’, **bərwà** ‘rich person’, **mòwa** ‘deaf mute’, **mùnafək** ‘hypocrite’, **bəlgè** ‘fool’, **kàawù** ‘fool’, **ngəriwù** ‘bastard’, **ngudì** ‘poor person, a good-for-nothing’, **təskən** ‘lazy person’, **zòli** ‘insane person’);
- kin terms and similar terms of human relationship: **yâl** ‘family’, **gàji** ‘youngest sibling’, **yâanà** ‘any sibling’, **kələma** ‘peer’, **hərma** ‘intimate friend’, **kamənzə** ‘companion’ (in Kanuri, literally ‘his friend’), **sawà** ‘friend of a spouse’;
- ethnic terms: **àfùno** ‘Hausa’, **fəlatà** ‘Fulani’, **kərdì** ‘pagan’, **nəsara** ‘European’, **zanna** ‘Kanuri person’ (this word means ‘master’ in Kanuri!).

Social organization: It is the Kanuris who brought Islam to Bornu, and with Islam came a legal system. Related to Islamicization is a complex hierarchical political system, an organized system of trade, and warfare. Also related to Islam and contact with cultures of the Middle East is reckoning of time. Kanuri vocabulary dominates in these areas, and in absolute terms, they probably comprise the largest number of loanwords, many from Arabic via Kanuri, though many such words would be technical terms, not found in everyday use. Some of the relevant categories are the following:

- religion: **àshâm** ‘fasting’, **bərgətə** ‘bless’, **fùwùra** ‘Koranic student’, **màshidì** ‘mosque’, **sàdàktə** ‘give alms’, **sàlâm** ‘peace’ (including greetings and other expressions using this root), **təwà**, ‘repentance’, **zannà** ‘heaven’;
- legal system: **aiwù** ‘crime’, **burwù** ‘legal complaint’, **haatə** ‘render judgment against’, **shadà** ‘testimony’, **waratà** ‘inheritance’;
- political: **mâi** ‘emir’, **ciròmà** ‘son of emir next in line of succession’ (and various other court titles), **bələmà** ‘village head’, **jàmâ** ‘the populace’, **lardə** ‘region’

<sup>40</sup> The Bade-Ngizim languages, as well as other Chadic languages of Yobe State, have a number of clause final conjunctions, at least some of which are native morphemes. The sources of these clause final conjunctions and the question of whether their clause final position is due to Kanuri influence needs further investigation.

- (typically used in the sense of a politically defined area), **rotə** ‘preside over’, **təmbəl** ‘kettle drum played only for important rulers’, **zələmtə** ‘oppress’;
- trade: **dinər** ‘gold’, **galiwù** ‘wealthy person’, **karè** ‘goods’, **làptə** ‘load an animal’, **manda** ‘salt block’ (an important early trade item), **ngaltə** ‘measure, weigh’, **sàrùtə** ‘borrow, lend’, **sawər** ‘trading’, **tamàn** ‘price, profit’, **wujir** ‘affair, business’;
  - warfare: **bəndəgə** ‘gun’, **bàlimi** ‘weapon’, **gàru** ‘town wall’, **kənasər** ‘victory’, **kadu** ‘pursuit’, **kàshaər** ‘sword’, **sòlòtə** ‘make a truce’, **watəmà** ‘enemy’;
  - time: **asər** ‘late afternoon, late afternoon prayer’ (as well as times associated with the other daily prayers), **balte** ‘late morning’, **dàtèn** ‘formerly’, **kàwu** ‘day, 24 hour period’, **lādè** ‘Sunday’ (and names for the other days of the week), **magè** ‘week’ (but not ‘month’, an important pre-Islamic time period), **njèstu** ‘be late’, **sá** ‘time’, **zàmàn** ‘epoch, time period’.

Medicine and ailments: Although a system of traditional medicine pre-existed contact with Kanuri, there is a significant number of Kanuri loanwords in this area, e.g. **dondì** ‘illness’, **(kələ)dəri** ‘(head)dizziness’, **kələwà** ‘good health’, **kəmolo** ‘nausea’, **kùrwùn** ‘medicine’, **ngá** ‘in good health’, **sərgè** ‘poison, medicine used against rivals’.

Introduced items: In part because of their widespread trade network, in part because of particular cultural features, the Kanuris introduced many new items into Bade-Ngizim society, and with those items, the terms for them. Some likely examples are the following: **búl** ‘man’s gown’ (from ‘white’ in Kanuri), **gàwàa** ‘woven cotton cloth’, **ràkkà** ‘metal anklet’, **zawa** ‘cap’, **zayè** ‘adornment’, **santəràm** ‘antimony’ (used as eye liner), **kərwè** ‘cane switch’, **kərwi** ‘well bucket’, **kutəràm** ‘mirror’, **mowòsə** ‘scissors’, **ngərgè** ‘small leather bag’, **sənduwù** ‘box, trunk’, **tàwâ** ‘tobacco’. Others, such as various weapons, have been mentioned above.

## 12. Conclusion

This paper has attempted to document some of the linguistic influences of the Kanuri language on languages of the Bade-Ngizim subgroup of West Chadic. The extensive borrowing of Kanuri words into these Chadic languages indicates contact and extensive bilingualism over a period of several centuries. Because of phonological and morphological differences between Kanuri and the Chadic languages, Bade-Ngizim languages have adapted Kanuri words to fit native patterns. Of historical interest is the fact that Kanuri loanwords in Bade-Ngizim languages retain phonological traits that have undergone radical changes in most, if not all varieties of modern Kanuri.

A subject for further investigation is the influence of Kanuri on the other Chadic languages of modern Yobe State, viz. Bole, Karekare, and Ngamo. Though these languages also have large numbers of Kanuri loanwords, it is my impression, confirmed anecdotally by people in the area with whom I have spoken, that the Kanuri influence is much less pervasive on these languages than on the Bade-Ngizim languages despite the fact that they are geographical neighbors. A careful study of their loanword vocabulary should clarify this issue.

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