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Initial findings on the Boor language

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Initial findings on the Boor language

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Abstract

This article provides the first published information on Boor, an Eastern Chadic language spoken in a single village in the Moyen Chari Region of Chad. First, the sociolinguistic situation of the language and its speakers is presented, along with the conditions under which the present data was collected. Then follows a very provisional statement about the consonant and vowel systems of the language, along with some remarks about nominal and verbal morphology. The article finishes by presenting several tables of lexical data, comparing Boor words with those of several nearby languages, in the interest of better understanding the place of Boor within the Eastern Chadic family.

Keywords: Endangered languages, Chadic, Chadic classification

1 Background

Boor (ISO 639-3 [bvf]) is undoubtedly the most obscure of the Eastern Chadic languages. Its speakers inhabit but a single village named Damraou, which hugs the banks of the Chari River in south-eastern Chad, about 145 km from the city of Sarh. Despite its riverine location, Damraou is difficult for outsiders to access; its language is completely undocumented, and is almost completely unknown to the outside world.

The first mention I find to this language is in Boyeldieu's (1985) monograph on the Niellim language, where he simply mentions that Boor is one of the languages that neighbours the Niellim, and that it is of the Chadic family. More recently, a word list was taken in the village of Miltou during a survey conducted by an SIL research team in December 1993 (Faris & Le Ndotar 1994). On that occasion, the Boor speaker was a certain Kara Kanyar, and a total of 160 items were collected and transcribed. However, the research was not conducted in Damraou, where the language is actually spoken.

In the ensuing years, I made repeated inquiry in N'Djaména about the language with Boua people who live in the area near Damraou. They confirmed to me that the Boor language exists, and is spoken in Damraou; however, I had not yet had any first-hand contact with the language or its speakers.

The first linguist to actually visit Damraou was Florian Lionnet, in the context of his own research into the Laal language, spoken in the nearby villages of Gori and Damtar. In March and again in November of 2012, Lionnet visited the village and collected a word list and some other rudimentary data in two very brief visits. Although Lionnet's primary focus was Laal, he did collect data on Boor: a few hundred words, simple sentences, pronouns, and verb forms.

Finally, during a separate survey of the situation of the Bagirmi language, I was able to reach the village of Damraou on April 19, 2013, but only for a single day. On that occasion, I conducted a sociolinguistic interview with a group of assembled villagers with the help of Assane Bella, who translated the questions into Bagirmi. I also transcribed and recorded a word list of 225 items with some rudimentary morphological data, as well as a brief text of slightly less than one minute. The Boor speakers who provided the language data were Hassan Kagalam and Oumar Khalamsa.

This paper summarizes the findings on the Boor language, from the data and the interviews conducted during my visit in 2013. Florian Lionnet was also kind enough to share with me the data from his notebook, and gave me permission to use what I could of his notes. His data is actually a bit more extensive than my own, but to date none of this data has been properly exploited. It will be understood that none of our data was collected under ideal circumstances, so the results that I report on here are very provisional.

2 Sociolinguistic situation

Our understanding of the sociolinguistic situation of the Boor language comes essentially from the interview conducted in 2013 with the villagers of Damrou.

2.1 Geography and demographics

The remarkable thing about the Boor language is that it is spoken in only one relatively small village, yet the language continues to be spoken, even by the children. Damraou is located on the north bank of the Chari River, about 145 km northwest and downstream from the city of Sarh. Administratively, it is located in the Moyen Chari Region of Chad, in the Korbol Département. The village is also on the outer edges of the Bagirmi domain, the ancient kingdom which assimilated a number of ethnic groups in the region years ago. The closest villages to Damraou are populated by speakers of Laal, Boua, and Bagirmi; a bit farther away we find speakers of Niellim, and also other Chadic languages, notably Miltu and Ndam.

The 1993 census of Chad is the last comprehensive census of the country with reasonably accurate detailed data that is publicly available. In that year, the population of Damraou was reported to be 96, made up of 54 males and 42 females. During our visit in 2013, the villagers reported that the population of the village was 106, reflecting a modest 10% increase over the previous 20 years. There are a few more speakers of the language in larger Chadian cities such as Sarh and N'Djaména.

2.2 Name of the language and people

The people of Damraou call their language Boor [*bor*], and its speakers are the [*bor*]. The Boua call them [*hua*], the people of Gori call them [*bor*], and the Bagirmi call them [*damraw*] after the name of their village. For the Niellim they are the [*buar*], and for the people of Kono they are [*bure*]. All of these names are acceptable to Boor speakers, and they incite no negative reactions. The name of the village is spelled Damraou on official documents, but it may also be pronounced [*dumraw*].

Despite the fact that the village is on the banks of the Chari River, the people are agriculturists, not primarily fishermen. They also reported that all were Muslim, although there is no mosque or Koranic school in operation there. None of the villagers are reported to practice traditional religion.

There is a school in the village, which has four classes, to the CE2 level. All the children of Damraou attend, and children also come from other nearby villages, swelling the enrollment number to 95 children. Of course, the language in school is French, but it is interesting that the people do not really claim any proficiency in French, and we did not interact with them in French during our visit. They added, however, that the schoolteacher, who was Sara, speaks some

Boua, so that sometimes explanations are given to the children in Boua.

2.3 Bilingualism and language use

The interviewees in Damraou reported that all the villagers speak the following languages, in addition to Boor: Bagirmi, Laal, Boua, and Chadian Arabic. Everyone speaks Boor at home, but children will learn to speak the other languages at about the age of seven or eight years. Most marriages are reportedly endogamous, but a few have taken wives from the Ndam, the Laal, the Boua, or the Niellim. The Boor do not intermarry with Sara, Fulani, or Arabs, although they have some contact with these peoples. Lionnet (p.c.) reports that he perceived the incidence of mixed marriages as higher than the people reported to us. In any case, the villagers said that when the wife comes from elsewhere, she will learn Boor and speak it in the home; however, they admitted that the wife's language may well be spoken in these homes, in addition to Boor. It appears nonetheless that the high incidence of multilingualism in the area has not had noticeable impact to date on the vitality of the Boor language.

When the people of Damraou interact with others, they will communicate in whichever language both sides have in common. With the Laal or the Boua, they would speak the language of the interlocutor. With the Ndam, the Miltu, Saroua, Gadang, or Bagirmi, however, they would be obliged to use Bagirmi. And in other cases, they might have to use Chadian Arabic. Of the four languages in which the people are multilingual, they reckoned that they spoke Bagirmi best, followed by Laal, Boua, and Chadian Arabic, in that order. Lionnet (p.c.) also mentions that some speak Niellim, but that language was not mentioned during the 2013 visit as being understood by all.

3 Boor language

This section presents some tentative conclusions about the phonology and morphology of the language, based on the lexical data collected in 2013, and supplemented with items from Lionnet's (2012) field notes.

3.1 Phonology

Tables 1 and 2 are preliminary charts of the consonants and vowels of Boor, based on the word list collected in 2013. The notes of Lionnet (2012) confirm my own findings. It is expected that a complete analysis will establish these as the basic phonological units of the language.

	Labial	Alveolar	Post- alveolar	Velar
Plosives, voiceless	р	t	ťſ	k
voiced	b	d	dz	g
pre-nasalized	mb	nd	(րյ)	ŋg
Implosives	б	ď		
Fricatives		S	[ʃ]	h
Nasals	m	n	n	ŋ
Lateral		1		
Flaps		ſ	[٢]	
Glides	w		j	

Table 1. Consonant system of Boor

This inventory is similar to that of other Chadic languages of the area, exploiting four points of articulation. There is a voicing contrast among the plosives only, and not for the fricatives. Implosives are common for languages in this area, and Boor has two of them. The consonants enclosed in square brackets are undoubtedly allophones of other consonants. The alveopalatal [f] occurs before front vowels, especially /i/, as an optional variant of the alveolar /s/. In other Chadic languages in the general area, notably Sarua and Somrai, the phoneme /s/ shows the same variation. The retroflex flap [r] occurs only once in my data, where it is in variation with [l]: [go:re \sim go:le] 'pebble'. This is reminiscent of the situation in Mulgi (personal field notes), where the phoneme l/l has allophone [r] before the front vowel /i/. One final comment concerns the set of prenasalized stops. While I have only found three in my data, it is likely that more data would reveal a full set at all four points of articulation, so I have added $[n_{f}]$ in parentheses in the table above. (Lionnet 2012 does show the word for 'giraffe' as [*n_iele*].) It should be noted that prenasalized stops are rare in Eastern Chadic languages, although they have been attested in a few scattered languages: Lélé (Frajzyngier 2001) and Sarua (Abderamane Abdoul 2018) in the Chari-Logone group of Eastern Chadic, and Zerenkel (Ramat, in preparation) in the Guéra group. Finally, it is interesting to observe that this inventory is essentially identical with the consonant system found in Laal, an unrelated neighbouring language which is a classificatory isolate (Boyeldieu 1982, Lionnet 2017).

Table 2 presents a preliminary vowel chart based on my data. Boor has this rectangular system in common with a number of other languages in the Chari-Logone group of Eastern Chadic:

	Front	Central	Back
High	i	i	u
Upper mid	e	ə	0
Lower mid	(3)		(כ)
Low		а	

Table 2. Vowel system of Boor

It is difficult to make final conclusions about the fine points of the system, however, because of the rudimentary nature of my data. The lower mid vowels [ε] and [\jmath] are more limited in their occurrence, and it is likely that they are allophones of /e/ and /o/, respectively. Such a situation obtains in a number of other Eastern Chadic languages. More problematic is the status of the central vowels [ϑ] and [i]. It is true that the mid vowel [ϑ] is much more frequent in my data than [i], but I hesitate to draw any conclusions about the relationship of the two vowels at this point.

The transcriptions in my data include a number of long vowels, but the evidence is not complete enough to confirm a phonological contrast of length. Also, although some vowels in a nasal environment have been transcribed as nasalized, there is no evidence that nasality is distinctive for vowels in this language.

A more interesting phenomenon is the variation I found in a number of words between [ɔ] and the diphthong [µa]: [bakµaj ~ bakɔj] 'spider', [kµani ~ kɔni] 'there', [bµaran ~ bɔrɔn] 'Boor speakers (pl.)'. Lionnet (2012) shows [bµara] for a single Damraou man and [bµaran] for the plural, but we both show [bor] for the name of the village and language. This alternation may be purely phonological,

or it may be conditioned by the morphology. The same alternation occurs in other Eastern Chadic languages such as Somrai (Roberts 2007, 2012), and to a lesser extent in Mawa (Roberts 2009). In those languages the alternation can be described as the effect of a word-level prosody of labialization (see Roberts 2001).

The parallel prosody of palatalization could also produce an alternation between [ε] and the diphthong [ia], but there are fewer examples of this diphthong in my Boor data, and I did not note any alternation with [ε]. The only examples of either transcription are in [natiara] 'I eat', [nafiara], 'I drink', and possibly [$j\varepsilon r\varepsilon \eta$] 'long, tall' or [giej] 'ember'.

It is interesting to note that Boyeldieu (1985), in his analysis of the Niellim vowel system, posits two unit phonemes which he represents as /wa/ and /ya/. These would correspond to the two alternations I have just mentioned. However, I believe that the situation in Boor is more likely due to a Chadic phenomenon, rather than one borrowed from an unrelated Niger-Congo language.

I should add that Lionnet and myself made some impressionistic and incomplete markings of tone on some of the words, but they are not presented here. It will be understood that little can be stated about the tone before a systematic study is undertaken, and it may turn out that even our initial impressions were erroneous.

3.2 Morphology

Information on Boor morphology is much more limited. I gathered a minimum of data in this area, but Lionnet (2012) actually includes a few more paradigms, which I report on here.

Nominal plurality in Chadic is often expressed by a variety of processes (Newman 1990). Most of the distinct plural forms in our data involve the names of animals. A few examples taken from Lionnet (2012) are shown in Table 3:

Singular	Plural	Gloss
cu:n	cwan	'elephant'
bəgtə	bəgt-an	'pigeon'
л ј еle	л յ еl-әw	'giraffe'
kom-o	kom	'mouse'

 Table 3. Morphological expression of plurality in Boor nouns

In *cwan* 'elephant', plurality is shown by the addition of internal *a* (see Newman 1990). If one assumes that the *w* of that word is part of its root, then that consonant is vocalised to *u* in the singular form, a process observable in other Chadic languages (see Roberts 2001). The next two examples, *bəgtə* 'pigeon' and *ŋyele* 'giraffe' show two different plural suffixes, *-an* and *-əw*; and in the final example the plural form is unmarked, while there is a suffix *-o* expressing the singular. Apart from a few cases like this, however, it seems that the majority of nouns do not inflect for number. Rather, plurality is implied when a quantifier or a numeral accompanies the noun.

The pronoun system is structured like that of other Eastern Chadic languages, distinguishing masculine and feminine forms in the singular for 2nd and 3rd persons. It was also expected that the language makes a distinction between exclusive and inclusive forms for the 1st person plural, but I could not find it, and Lionnet (p.c.) reports that the Boor speakers gave clear indication that the distinction does not exist.

Pronominal markers in Chadic languages may occur as free (or clitic) forms, when they appear as the subject of a verb. But they may also be suffixed onto a noun for the expression of inalienable possession, or onto a verb to express its direct or indirect complements. My data includes possessive forms for several parts of the body, and Lionnet (2012) has a number of additional items. Lionnet's data also shows that the same or similar pronominal suffixes are used as verbal complements. Table 4 shows the independent and suffixed forms of each pronoun as found in our data; the plural forms are from Lionnet's notes.

	Independent	Suffixed
1st singular	$nu \sim n \partial \sim n i$	-и
2nd sing. masculine	jaŋ	-aŋ
feminine	ŋgə	-ə
3rd sing. masculine	ſi	-i
feminine	ndə	-r
1st plural	ji	(nd)in
2nd plural	jɨŋ	(nd)iŋ
3rd plural	ŋgə ~ ŋgɨ	(nd)u

Table 4.	Personal	pronouns
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The Boor verb displays at least two finite forms, which Lionnet has provisionally labeled imperfective and perfective. The perfective form often shows -a or -a or -o suffixed onto the imperfective form, the choice possibly conditioned by the vowel of the verb root. Some verbs also undergo a change in the root vowel, the phenomenon that Jungraithmayr (2006) calls "apophony" or "ablaut". A few examples are shown in Table 5:

Imperfective	Perfective	Gloss
min	m i na	'do'
gən	guno	'attach'
hul	hulə	'see'
ti	taa	'eat'
si	saa	'drink'

Table 5. Boor verbs in imperfective and perfective forms

4 Comparison with other Chadic languages

Boor has been classified in the same subgroup of Eastern Chadic with Sarua, Gadang, and Miltu (Barreteau & Newman 1978), undoubtedly because of the geographical proximity. This is the Eastern subgroup of the Chari-Logone group of Eastern Chadic languages, according to my labeling, or subgroup A.1.2 in Barreteau & Newman's (1978) more abstractly labeled system. The people of Damraou realized that their language had some similarity to Miltu, but they knew nothing of Sarua or Gadang. When communicating with speakers of any of these other languages, the Damraou villagers reported that they would have to use Bagirmi, in any case.

An examination of the Boor data shows that this language is quite different, as compared to the other languages in its cluster. According to a very generous reckoning based on the 225-word list, I found only 51% of items that were possible cognates between Boor and Miltu. A more realistic count yielded a result of only 38% lexically similar items between these two. These indicators should be sufficient to establish Boor as a distinct language, and not a dialect of Miltu, as some have hypothesized (cf. Jungraithmayr & Peust 2019: 220). With regard to the other languages in the cluster, the results are much lower: a comparison of Boor with Sarua quantifies the similarity at 26%; and for Boor with Gadang, 28%. These findings led me to compare the Boor wordlist with data from other Chadic languages in the wider geographical area, to see if there were any closer affinities of Boor to a language from a different subgroup. But the results were no different. With Ndam, another close neighbour of Boor in the Chari-Logone subgroup, I found 25% similarity, and with Mawa (and Sokoro), from the southern cluster of Guéra languages, the similarity is at 22%.¹

It is premature to propose any modifications to the classifications of languages within Eastern Chadic, but these indicators should help pave the way for further research into Boor and its Chadic neighbours. In the remainder of this article, I will simply present some tables of data to show comparisons of the Boor data with that of four other languages, languages which were chosen to represent Boor's closest possible relatives. I refrain from making further comments at this early stage of research on this language, but these data may be useful to others who are interested in the connections between these languages.

The first, Table 6, displays the numbers from one to ten, with comparisons to the languages mentioned above. At least some of the Boor forms are compounds, notably the words for 'seven' and 'nine'.

Gloss	Boor	Miltu	Sarua	Ndam	Mawa
'one'	lęk	pidim	min	man	pəni
'two'	sirri	sir	(ka)raį	sa	rap
'three'	supa	səp	sup	sub	sup

Table 6. Comparative data for numerals

1 The sources of data are as follows. For Miltu, I used the 225-word list (Roberts 2013) collected in the village of Miltou during the same survey trip as the visit to Damraou. For Sarua, I used data from the mémoire of Abderamane Abdoul (2018); and for Gadang, I used data from an old SIL survey trip (Vanderkooi 1990), supplemented by verb data from Jungraithmayr (2006). For the other languages, I used Cray (2012) and Broß (1988) for Ndam, and my own data for Mawa. I was careful to exclude items that were known loans in one or another of the lists, or else were duplicates of other words on the same list. And there were also some items missing in one or more of the lists. As a result, the calculations are based only on about 200 items in each case. Since the Miltu data was collected by the same method as the Boor data, 213 items were used in the calculation. The data on Gadang is the most incomplete, so that its calculation, which is the most uncertain of the cases presented here, is based on only 155 items.

Gloss	Boor	Miltu	Sarua	Ndam	Mawa
'four'	paɗe	fwɔt'	wət	weti	paat
'five'	pi'dze	рі	wu j u	wiſi	bii
'six'	фагаŋ	dzigidim	Jibərm i n	wogi	biaapan
'seven'	фагаŋ mbarme	dzigsir	jisar	daksub	biamat
'eight'	pare	fɔrɔwət'	marta	wetwet	patpat
'nine'	parę ba	bani p i dim	mical mun	disaaman	kuapinikara
'ten'	рар	g ^w ɔm	dɔko	kwar	kuaayan

Table 7 shows the words for a few parts of the body. It is possible that many of these are bound forms in Boor, and must obligatorily take a possessive suffix.

Table 7. Comparative data for parts of the body

Gloss	Boor	Miltu	Sarua	Ndam	Mawa
'head'	kai្r-	ki-	ndi-	dəj	guaam
'eye'	nind-	ədən-	de(r)-	ci	ir
'nose'	danto	hunan-	ndosn-	tan	demel
'ear'	sima-	∫iman-	∫ime-	sam	uandar
'mouth'	par-	pie-	mbu-	bəg	but
'tooth'	sind-	sɨn-	sand-	san	siin
'belly'	garn	gid-	notr-	guj	at
'back'	jar	gar-	gar-	tar	taar
'buttock'	gula-	w i lil-	ndaw-	gaj	wəl
'blood'	pier-	par-	mbar	bar	siat

Table 8 displays several verbs in their citation form (possibly the infinitive or nominal form):

Gloss	Boor	Miltu	Sarua	Ndam	Mawa
'eat'	ti̯arə	tə	ndra	wom	teeŋ
'drink'	∫iِarə	sə	∫ija	∫әу	siaaŋ
'kill'	tija	koji	ndəh	aj	diaaŋ
'see'	hulə	kəl	ndata	kal	піааŋ
'give birth'	waurə	wə	ndija	aw	wiaaŋ
'die'	тиго	mər	mara	may	midiŋ

Table 8. Comparative data for verbs

Gloss	Boor	Miltu	Sarua	Ndam	Mawa
'weep'	wəl	? wɔp [¬]	wəla	nulə	ələŋ

The final Table 9 presents a few additional items that are of pan-Chadic interest.

Table 9. Comparative data for other items

Gloss	Boor	Miltu	Sarua	Ndam	Mawa
'name'	libr-	ribi-	sime(di)	sam	suun
'dog'	gəri	gər	ndokro	дәу	kuy
'elephant'	tfu:n	tfurn	јип	cun	bəl
'fish'	horo	fuci	ŋgosəį?	gwəs / ba	buus
'tree'	darre	uro	aduwa	adu	səw
'sun'	рагә	par	пја	jo(w)	pidi
'moon'	tirə	tər	ndu	dir	del
'wind'	ərlə	əlal	ndifid	gaal	иас
'water'	wum	wum	nam	naam	ami
'fire'	kur	kur	nduwa	dəw	ak
'road'	wur	wudit	тbərəɲ	bəm	əər
'meat'	su	fi	ndon	dwaan	biik
ʻoil'	suanə	suan	suwan	swan	suun
'egg'	di	ŋgasi	nanas	naas	diaas
'red'	рәт	pari	bəra	pare	raabi
'black'	kəlmi	kilim	ununa	digire	cilim
'white'	dare	f ^w ər	pora	duwe	uro

It is hoped that this paper, and the data it presents, will stimulate further research into the Boor language and into the other underdocumented Chadic languages in the surrounding region. Our understanding of the relationship between these languages is still very imprecise, as is our understanding of the sociolinguistic factors that allow such a small language such as Boor to retain its vitality.

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