

Heiban Grammar

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1. Introduction

This document describes work done on the analysis of Heiban grammar. The analysis is incomplete, but work on the language has stopped and I am writing up as far as I have got. All the data in this document was provided by Adam Kuku Kafi and his son James Adam Kuku of the Abul tribe of Heiban.

I did not manage to analyse much of the language because Adam did not have much time to do the work and James was not sufficiently interested to do much. All Adam's attempts at recruiting more people, especially people from different dialects has failed. So as neither Adam nor James now has time to work on their language, work has stopped. In this document I describe the progress that has been made. The only aspect of grammar which has been analysed in any detail is the noun class system. It was while doing this, that we ran into dialect problems. I managed to do a little on other aspects of grammar with James and our analysis so far is detailed in the remaining sections. The data on which most of the analysis is based, will be found in the appendices.

2. Orthography

Missionary work started in the Heiban group in 1920 and the New Testament was published in 1966. They therefore have an established orthography. In this section, we briefly outline this Heiban orthography.

2.1 Consonant Phones of Heiban

p	ṭ	t	c	k
b	ḍ	d	ʃ	g
	f	s	x	h
	v	z		
m		n	ɲ	ŋ
		l		
		r	ɾ	
w			j	
ɸ		ɸ		

Some of these phones (f, h, x, s, v, and z) seem to have been included for arabic loan words.

2.2 Vowel Phones of Heiban

i		u
e	e	o
		o
	a	

2.3 The Orthography

Here we give the orthographic equivalents of the phones, including words showing where these phones occur word initially, medially and finally. The words will be written in the orthography, but one should bear in mind that because of unresolved confusion and conflict of dialects (see below), not all words will be from the same dialect. I have not investigated the orthography thoroughly and the following is based mainly on my list of nouns.

a	a	abaŋ	chest	gabrakur	dove	iga	fire
b	b	babo	father	gibur	door		
ʃ	ʃ	baŋalaŋ	look up				
c	c	coŋ	some	goco	5 th born boy		
d	d	del	graves	ludum	star		
ḍ	dh	dhar	rope	ḥidhri	bull	diŋlidh	dream
ḍ	ḍ	ḍebra	ear ring	ḥurde	barbed spear		
e	e	ela	go	len	village	ḥare	child
f	f	fruta	fruit				
g	g	gum	fish	logiro	lizard		
h	h	hekal	skeleton				
i	i	iga	fire	ḥin	dog	idhi	meat
ʒ	j	jiŋla	tortoises	giŋja	bottle		
k	k	kuku	1 st born boy	kaka	1 st born girl		
x	kh	khartush	rifle				
l	l	lirko	knee	gulo	neck	lal	flies
m	m	mega	brother	limur	walking stick	ludum	star
n	n	nana	mother	linyu	mouth	lamun	finger
ɲ	ny	nyol	stones	nyelnyel	sweet	lirany	ram
ŋ	ŋ	ḥin	dog	gaŋal	ewe	guwaŋ	buffalo
o	o			lony	egg	ḥiro	work
ɔ	ɔ	oga	skeleton				
p	p			ḥapoy	cat		
r	r	rom	two	lira	monkeys	liber	tail
ɽ	ɽ			luŋa	bird		
s	s	sabun	soap	thimsa	crocodile		
t	t	tagiya	cap	ḥarta	axe		
ʈ	th	thiril	three	gwibuthanu	bigger	peth	all
u	u	ule	writing	gum	fish	dhumu	scorpion
e	ū	ūḥin	sun	gūni	ear	gidhū	year
v	v			guwava	gwava		
w	w	wūḥ	milking	gwa	woman	ḥaw	water
j	y	yijejra	rat trap	gwayima	brother in law	luy	bone
z	z	zarif	envelope				

2.4 Contrasts

I have not been able to spend time with the group to find contrasts. However, I have found some contrasts in my data:

2.4.1 Contrasts between vowels:

u / ū	guru	dung	gūru	waterskin
o / u	dhugor	heart	dhugur	type of grass
e / u	gamun	claw	gamen	type of tree
a / u	dhumu	scorpion	dhuma	snake
o / e	gol	stone	gel	gravel
a / e	ḥura	stick for men	ḥure	wood

2.4.2 Contrasts between consonants

n / ḥ	dhulun	animal	dhuluḥ	elbow
m / ḥ	guwam	snake	guwaḥ	buffalo
ḥ / ny	ḥin	dog	nyin	dogs
l / r	ḥela	fat	ḥera	girl

Many more contrasts between consonants need to be found. My data suggests that, at least word initially, there is no contrast between k and g as these seem to be interchangeable. D and r also seem to be interchangeable in work initial position.

I have been able to note a couple of contrasts in vowel and consonant length; there are probably many more:

i / ii	ɲin	dog	ɲiin	blood
r / rr	ɲiro	work	ɲirro	urine

3. Heiban Dialects

There are three dialects of the Heiban language: Heiban (dheban), Abul (dhabul), and Umjan (dhumjan). I have not been able to analyse the lexical variations between these dialects because I have not been able to work with people from the different dialects. However according to Adam, Abul and Umjan are virtually the same, but many words are pronounced differently in Heiban. The main differences are:

- Heiban has words starting with 'k'; this is rare in Abul and Umjan where most of these words start with 'g'. I suspect that 'g' and 'k' are the same phoneme.

Examples:

Heiban	Abul	Umjan	English
kwa	gwa	gwa	woman
karo	garo	garo	grass
kuri	guri	guri	mouse
kware	gware	gware	tree

- Many words which are spelt with 'ɽ' in Abul and Umjan, are spelt with 'r' in Heiban.

Examples:

Heiban	Abul	Umjan	English
ɲrun	ɲɽun	ɲɽun	animal
lura	luɽa	luɽa	bird
gwereny	gweɽeny	gweɽeny	house
kware	gware	gware	tree

- The noun classes of common things and of large and dangerous things generally have zero plural prefix in Abul, but plural prefix 'j-' in Heiban. I have no data for Umjan.

Examples:

Heiban	Abul	English
dinla	rinla	tongues
durar	ruɽar	leopards
duwa	ruwa	roots
dil	ril	horns

- The noun class of long things has plural prefix 'd-' in Heiban, but generally 'r-' in Abul. I have no data for Umjan.

Examples:

Heiban	Abul	English
juma	uma	snakes
jagro	agro	chickens
jugi	ugi	thorns
jumu	umu	scorpions

All my data on this issue is suspect because it has all been provided by Adam who can barely read his language and whose spelling generally has to be corrected. It is also very difficult to gauge how well he knows the other dialects.

These dialect differences are a concern because the NT has been translated into the Heiban dialect. According to Adam, this is a minority dialect (especially when Abul and Umjan are so similar) and he wants to change the

writing system to reflect his own dialect. In fact the primer which James is working on has been written in the Abul dialect. I have no idea how much community support there is for this change.

4. Noun Classes

Despite having words from (at least) two dialects, it has been possible to come to some conclusions as to what the noun classes are. The noun classes are identified by their singular and plural prefixes and by their concords and are given in the following chart: The noun class numbering used is that given by Stevenson 1956. Where there are 2 numbers for a noun class, the first number gives the singular form, and the second the plural form. Zero prefixes are indicated by \emptyset . My analysis is based on a list of 450 nouns and a complete list of nouns by class will be found in appendix 2.

Noun class no	singular prefix	singular concord	plural prefix	plural concord	semantic identification
1,2	kw-/gw- ku-/gu- \emptyset	gw-	l- li-/lu- li-	l-	People, animals and nature except trees
1,2	\emptyset	gw-	- η a (suffix)	l-	relatives
3,4	kw-/gw- ku-/gu-	gw-	j-/ \emptyset ji-/ju-/ \emptyset	j-	trees
5,6	l-	l-	η -/ η w-	η w-	sets
7,8	k-/g-	g-	j-/ \emptyset	j-	common things
9,10	dh-	dh-	d-/r-	d-/r-	long thin things
11,12	dh-	dh-	j-/ \emptyset	j-	large and dangerous things
13,14	k-/g-	g-	ny-	ny-	hollow and deep things
15,16	η -	η -	ny-	ny-	domestic and small animals and things
20	η -	η -	-	-	liquids and abstract nouns
21,22	η -	η -	j-	j-	goat
25,26	\emptyset	\emptyset	j-	j-	words beginning with a vowel
					foreign words

4.1 Dialect Differences

Many of the variations in the singular and plural prefixes given in this chart are probably due to dialect differences. The 'k'/'g' and 'd'/'r' differences have been mentioned above. Here we can note that the differences are in the noun class prefixes. The common things class also has variations. I have some data which suggests that the Heiban plural prefix is 'j', whereas the plural prefix for Abul is \emptyset , but I do not have enough evidence to be sure.

4.2 Morphophonemics

- In the classes which have singular prefix 'gu' or 'gw' and 'ku' or 'kw', 'gu' and 'ku' are used when the next letter is a consonant and 'gw' and 'kw' are used when the next letter is a vowel. The plural in these classes is formed either by replacing 'gw' or 'kw' with the appropriate plural prefix, or by replacing 'gu' or 'ku' with the appropriate plural prefix followed by a vowel. This vowel is normally 'i', but can be 'u'. I have not been able to find a rule to tell me which vowel should follow.
- In the class with singular prefix 'l' and plural prefix ' η ' or ' η w', there is some variation on how the plural is formed. In a few words, the prefix 'l' is replaced by ' η w'; in the rest of the words, 'l' is replaced by ' η ' and when 'l' is followed by 'i', the plural is generally formed by replacing 'li' with ' η u'. I have so far not found anything to explain the two ways of forming the plural for this class.

4.3 Class distinctions

The above noun class classification closely matches that of Stevenson [1]. The main differences are that there are more classes in the above classification. According to Stevenson hollow and deep things should be in the common

There are exceptions to all these rules and sometimes the adjective does not change at all but an extra word is added:

guthaŋ	guranu guthaŋ	dirty
gwimiri	guranu gwimiri	kind

Example of usage of comparatives:

Note that the use of 'di' (than) is obligatory.

James gwibuthanu di Kuku. James is older than KuKu

7. Verbs

Very little work has been done on verbs. It seems that many tenses/aspects are expressed using auxiliaries. Some work was started on infinitives or verbal nouns, but all we found out was that these are formed by adding 'd-' or 'di-' to the root depending on whether the root starts with a vowel or not. I do not have examples of their usage.

8. Numbers

Heiban numbers are only useful for numbers less than 200. Above this, they become unwieldy, requiring a good knowledge of multiples of 20.

The first 20 numbers are as follows:

1	gwetipo	11	die a gwetipo
2	ram	12	die a ram
3	thiril	13	die a thiril
4	koriŋo	14	die a koriŋo
5	thudhna	15	die a thudhna
6	nyiril	16	die a nyiril
7	koriŋo a thiril	17	die a koriŋo a thiril
8	dubaŋ	18	die a dubaŋ
9	thudhina a koriŋo	19	die a thudhina a koriŋo
10	die	20	dhure

The numbers up to 200 proceed similarly as the teens with only the words denoting the power of 10 changing. The words for 30, 40, 50 up to 200 are:

30	dure a die
40	dhure ram
50	dhure ram a die
60	dhure thiril
70	dhure thiril a die
80	dhure koriŋo
90	dhure koriŋo a die
100	dhure thudhna
110	dhure thudhna a die
120	dhure nyiril
130	dhure nyiril a die
140	dhure koriŋo a thiril
150	dhure koriŋo a thiril a die
160	dhure dubaŋ
170	dhure dubaŋ a die
180	dhure thudhina a koriŋo
190	dhure thudhina a koriŋo a die
200	dure die

9. Sentence Structure

The basic word order in Heiban seems to be SVO. Noun class concord agreement goes on determiners, adjectives and verbs and agrees with the subject of the sentence. Noun modifiers normally occur after the noun.

10. Appendix 1: Dialect Differences

This list of words was provided by Adam and I don't think he consulted with speakers of the different dialects to produce it.

Heiban	Abul	Umjan	English
Kuji	guji	guji	person
kwa	gwa	gwa	woman
kware	gware	gware	tree
karo	garo	garo	grass
kare	gare	gare	belly
ɲure	ɲure	ɲure	axe
ɲuriny	ɲuriny	ɲuriny	magic
lurro	luɽo	luɽo	
ɲrara	ɲɽara	ɲɽara	
ɲrun	ɲɽun	ɲɽun	animal
kuri	guri	guri	mouse
ɲrany	ɲɽany	ɲɽany	sickness
dhora	dhora	dhora	
lora	loɽa	loɽa	
dhrary	dhɽany	dhɽany	boundary
dhura	dhura	dhura	counting
dhure	dhure	dhure	wood
ligugre	ligugre	ligugre	
giridhir	giridhir	giridhir	dove
gurjūr	gurjar	gurjar	knife
lura	luɽa	luɽa	bird
guraɲar	guraɲar	guraɲar	monkey
gurwel	gurwel	gurwel	monkey
gwereny	gwereny	gwereny	house
dhimre	dhimre	dhimre	
dhimreny	dhimreny	dhimreny	cave
dhuro	dhuro	dhuro	back
dhuraw	dhuraw	dhuraw	yard
ɲara	ɲara	ɲara	
ɲurinya	ɲurinya	ɲurinya	kill
raje	ɽaje	ɽaje	
dhriɲy	dhriɲy	dhriɲy	
gidhogra	gidhogra	dhidhogra	eating
ɲudhagrar	gudhagrar	ɲudhagrar	

11. Appendix 2: Noun Classes

People, Animals, and Nature (except trees)

gucega	licege
gudha	lidha
godhoro	lodhoro
gudhrun	lidhrun
gudhudhu	lidhudhu
gudhugre	lidhugre
gudhuna	lidhuna
guja	lija
gujaɲ	lijaɲ
gukrungo	likrungo
gukwari	likwari
gum	lum
gumi	limi
gumiri	limiri
gumuro	limuro
gumoreny	limoreny

gw/kw/ gu/ku 1

Denkaman
wild animal, type of
gourd of milk
vegetable
pot
tribalman
lazy man
gourd
way
person
tribalman
fish
sea animal
tribalman
type of fence to keep animals out
tribalman

gumro
 gumoreny
 gumū
 guna
 guragar
 gurereny
 guthuro
 guwa
 guwam
 guwani
 guwanj
 gwa
 gwa
 gwabul
 gwadhan
 gwaginu
 gwago
 gwal
 gwanḡha
 gwara
 gwaral
 gwarany
 gwaygu
 gwebanj
 gwidagig
 gwidhir
 gwiga
 gwike
 gwilaro
 gwimoro
 gwina
 gwira
 gwiragar
 gwiriiny
 gwiriny
 gwithira
 gwurwel
 gwūmū
 kuri
 kwa
 kwawa
 kweleny
 kwereny
 kwiga
 kwiin
 kwiji
 kwini
 kwira
 kwirin
 φ li
 mega
 mirtha
 murkab

Relatives

afundhi
 are
 awurika
 babo

φ

ŋa

limro
 limorrny
 limū
 luna
 liragar
 lirereny
 lithuro
 luwa
 lam
 lūni
 luwanj
 la
 law
 labul
 ladhan
 luginu
 lango
 lal
 lanḡha
 lara
 laral
 larany
 laygu
 lebanj
 lidagig
 lidhir
 liga
 like
 lilaro
 limoro
 lina
 lira
 liragar
 liriiny
 liriny
 lithira
 lirwel
 lūmū
 luri
 law
 lawa
 leleny
 lereny
 liga
 liyin
 liji
 lini
 lira
 lirin
 limega
 limirtha
 limurkab

afundhiŋa
 arŋa
 awurikaŋa
 baboŋa

vegetable
 vegetable
 witch
 father in law
 gorilla
 vegetable
 tribalman
 moon, month
 boa constrictor
 small boa constrictor
 buffalo
 wife
 woman
 person
 antelope, type of
 engaged (F)
 engaged (M)
 fly
 watchman
 enclosure
 antelope, type of
 antelope, type of
 arabman
 Heiban person
 dagig tribe
 bad woman
 wife of brother
 bad person
 laro tribe
 moro tribe
 witch
 hyena
 monkey
 antelope, type of
 warthog
 tira tribe
 monkey
 man
 mouse, rat
 woman, wife
 mosquito
 chief, king, boss
 wooden house
 in law
 tree, type of
 person
 tree, type of
 hyena
 guest
 brother
 horse
 canoe

teacher
 somebody
 friend
 father

goco
gwadha
gwayir
kaka
kana
kuce
kuku
kumi
kunda
kurna
kuti
kwalo
kwani
madhir
nana
nare

gocoŋa
gwadhaja
gwayirŋa
kakaŋa
kanaŋa
kuceŋa
kukuŋa
kumiŋa
kundaŋa
kurnaŋa
kutiŋa
kwaloŋa
kwaniŋa
madhirŋa
nanaŋa
kelija

fifth boy
in law
brother in law
firstborn girl
firstborn boy
third girl
firstborn boy
fourth boy
sixth boy
grandfather
second boy
third boy
second girl
director
mother
child

Trees gw/kw/gu/ku g

gu
gudha
gudhbo
gulo
guru
gwibu
kugriny
kukul
kukulu
kumrur
kwala
kware
kwidaŋ
kwiya

ju
judha
judhbo
julo
juru
jibu
jugriny
jukul
jukulu
jimrur
jala
jare
jidaŋ
jiya

breast (woman's)
tree, type of
ostrich
neck
dung (of cow)
tree, type of
tree, type of
gourd, type of
vegetable, type of
tree, type of
tree
tree
tree, type of
tree, type of

Unit Collective

l

ŋ
ŋawun
ŋen
ŋuber
ŋubuŋ
ŋudhrom
ŋudotor
ŋima
ŋumen
ŋumroy
ŋumrur
ŋumur
ŋurany
ŋurci
ŋuririm
ŋurko
ŋuwawra
ŋogiro
ŋogiyo
ŋony
ŋora
ŋudum
ŋura
ŋure
ŋuy

lawun
len
liber
libuŋ
lidhrom
lidotor
lima
limen
limroy
limrur
limur
lirany
lirci
liririm
lirko
liwawra
logiro
logiyo
fony
lora
ludum
lura
lure
luy

nose
mountain (hill), village
tail
lake (pond)
pebble
intestines (guts)
lion
wall
cooking stone
fruit, type of
walking stick
ram
sesame tree
dura, type of
knee
flower
lizard, type of
bird, type of
egg
leg
star
stick for men
wood
bone

luyo
luru

nyoyo
nuru

bird
shield

l gw

ladam
lagru
largul
laiga
lamun
lamun
leny
ler
lidan
lidiny
linyu
lübün

ɲwadam
ɲwagru
ɲwargul
ɲwaiga
ɲwamun
ɲwamun
ɲweny
ɲwer
ɲwidan
ɲwidiny
ɲwinyu
ɲwübün

tip
bird, type of
bell
fruit, type of
finger
day
gourd
thigh
fruit, type of
wild plant, vegetable
mouth
chin

Common Things

g/k

j

gabarü
gabibo
gabile
gabipir
gabir
gabiru
gabjagul
gabrakur
gadhu
gamen
gamrany
ganjal
ganjer
gibur
gidegel
gidhur
gimla
gimlugun
ginay
girma
gogor
gola
gu
gudha
gudhbo
gulo
guru
güe
güpa
güru
güwan
güru
kagar
kagro
kajam
kajama
kamal
kamla
kaŋra
karbille
kawdhe

jibaru
jabibo
jabile
jabipir
jabir
jabiru
jabjagul
jabrakur
jadhu
jamem
jamrany
janjal
janjer
jibur
jidegel
jidhur
jimla
jimlugun
jinay
jirna
jogor
jola
ju
judha
judhbo
julo
juru
jüe
jüpa
jüru
jüwan
jüru
jagar
jagro
jajam
jajama
jamal
jamla
janra
jarbille
jawdhe

cloud
bat
butter
butterfly
worm, type of
old man
vegetable
dove
breeze
type of tree
hyena
ewe
worm, type of
door
louse
stool (chair)
tortoise
bark of tree
tooth
skin
tree, type of
feather, wool
breast (woman's)
tree, type of
ostrich
neck
dung (of cow)
eye
sweeper
skin for carrying (waterskin)
animal
hair
gate, type of
hen, chicken
wild animal, type of
trap
youth
camel
headgear for carrying
water_melon
shoe

dhoy
dhrany
dhre
dhruny
dhubūla
dhugor
dhugur
dhukar
dhula
dhulaŋ
dhukun
dhuluŋ
dhumrany
dhumuria
dhunya
dhugur
dhurar
dhuro
dhuṛaw
dhuwa
dhuwa

doy
drany
dre
druny
dubūla
dugor
dugur
dukar
rula
rulaŋ
dulun
ruluŋ
dumrany
dumuria
runya
dugur
durar
duro
duṛaw
duwa (Heiban)
ruwa (Abul)

hand
boundary
stirring stick
field
corn
heart
grass, type of
bean
local long stream
ant, small
animal, type of
elbow
body, part of
cloth
grinding stone
elephant
leopard
back
village_fence
root
snake

Large and Dangerous Things

dhar
dhimony
dhogom
dhugi
dhul
dhuma
dhumu
dhuṛur
dhuro

dh j
jar
jimony
jogom
jugi
jul
juma
jumu
juṛur
juro

rope
twig
wild cat, type of
thorn
giraffe
snake
scorpion
elephant
roof_beam

Hollow and Deep Things

gabre
gamun
garro
gbo
gel
gidhaga
gidhe
gidhlū
gilela
gimiri
gimu
gol
guna
gūdi
gūdū
gūli
gūni
gūrri
kare
kuna

g ny
nyabre
nyamun
nyarro
nyibo
nyel
nyidhaga
nyidhe
nyidhlū
nyilela
nyimiri
nyimu
nyol
nyuna
nyūdi
nyūdū
nyūli
nyūni
nyūrri
nyare
nyuna

shoulder
claw, nail
grass
wing
grave
plough
pot
year
gourd for oil
big pot
cave, big
stone
local spoon
girdle?
knife
sheath
ear
knee cap
belly (stomach)
spoon, local

Domestic and Small Animals and Things

ṇadhun

nyadhun

ṇ ny

forehead

ḡürmin	-	hurt
ḡwal	-	weeping
ḡwar	-	sleep
ḡwūmu	-	saliva

Goat		
ḡuro	juro	goat

Words Starting with a Vowel (Mostly Food)

	φ	j
abaḡ	jabāḡ	chest
abile	jabile	bat, type of
abraḡ	jabraḡ	sugarcane, local
aburo	jaburo	sugarcane
aro	jaro	ash
awudhe	jawudhe	sandal
idhi	jii	meat
idhiro	jidhiro	vegetable
iginy	jigny	inside of gourd which you take out
igur	jigur	plant, type of
ila	jila	flour
iliny	jiliny	mushroom
imu	jamu	hunger
iriny	jiriny	name

Foreign Words and Irregular Nouns

awe	awe	liver
gambagila	ḡambagila	ass
iga	iga	fire
iga	iga	gun
krindhi	krindhi	hippo
libila	-	liquid
ḡodo	ḡodo	worm
tagiya	ragiya	cap
thimsa	thamase	crocodile

12. Appendix 3: Adjectives

Adjective	Comparative	English
gimanu	gimananu	cooked
gobla ganu	goblanu ganu	short
goran	goranu	wide
goranu	goranu ganu	wide
gudraḡ	gudranu	thin
gudraḡ nono	gudranu nono	thick
guduny	guran guduny	
gujaḡrul	guranu gujaḡral	careless
gujuḡo	gujuḡany	
gukudhnu	gukudhnanu	fat
guma	gumanu	ill
guma ḡiya	gumanu ḡiya	painful
gumnaḡ	gumnanu	black
gumū	gunranu gumū	
gurlidh	guranu gurlidh	