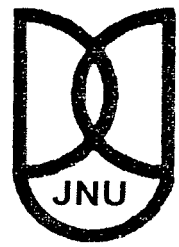
WORD PHONOLOGY OF PAITE

DISSERTATION SUBMITTED TO JAWAHARLAL NEHRU UNIVERSITY IN PARTIAL FULFILLMENT OF THE REQUIREMENT FOR THE AWARD OF THE DEGREE OF

MASTER OF PHILOSOPHY

NIANGLIANMOI



CENTRE FOR LINGUISTICS

SCHOOL OF LANGUAGE, LITERATURE AND CULTURAL STUDIES

JAWAHARLAL NEHRU UNIVERSTIY

NEW DELHI – 110067

INDIA

2011

Abbreviations

ABL	Ablative
EXCL	Exclusive
ECV	Explicative compound verb
IMPF	Imperfective
INSTR	Instrumental
INCL	Inclusive
INTR	Interrogative
PERF	Perfective
PL	Plural
PLPR	Place Particles
PST	Past
SG	Singular
TEMPR	Temporal particles

Acronyms

AUX	Auxiliary
CLA	Classifier
DEF	Definite
FUT	Future
NEG	Negative
NOM	Nominative
PAT	Patient
POSS	Possessive

Symbols

/ /	Phonemic representation
[ ]	Phonetic representation
[ˈ]	Primary stress
→	Realization
[ˌ]	Secondary stress
##	Word boundary
#C	Before consonant
C#	After consonant
#V	Before vowel
V#	After vowel
[.]	Syllable break
[ː]	Vowel length
[ˆ]	Rising tone
[ˇ]	Falling tone
[¯]	Mid tone

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Dated : 25/07/2011

CERTIFICATE

This dissertation titled "**WORD PHONOLOGY OF PAITE**" submitted by Ms. Nianglianmoi, Centre for Linguistics, School of Language, Literature and Cultural studies, Jawaharlal Nehru University, New Delhi, for the award of the degree of **Master of Philosophy**, is an original work and has not been submitted so far in part or in full, for any other degree or diploma of any university or institution.

This may be placed before the examiners for evaluation for the award of the degree of Master of Philosophy.

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DECLARATION BY THE CANDIDATE

This dissertation titled **"WORD PHONOLOGY OF PAITE"** submitted by me for the award of the degree of Master of Philosophy, is an original work and has not been submitted so far in part or in full, for any other degree or diploma of any university or institute.

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NIANGLIANMOI

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CHAPTER 1

INTRODUCTION

Paite belongs to the Northern Chin sub-group of Kuki-Chin (Grierson 1904) of the Tibeto - Burman stock of the great Sino-Tibetan family of languages. The people of Paite in India are known as Paite while Tedim-Chin in Burma (Myanmar). Paite and Tedim-Chin in fact share the same culture, language, folksongs, and folklore. They are from the same kinship.

The term Kuki-Chin is the racial name given by outsiders to represent CHIN tribes in Myanmar and other tribes of CHIN in India conventionally. Tedim - Chin is the name for division among forty-four other Chin tribes in Burma.

Paite language is chiefly spoken in Lamka town of Churachandpur district and known and understood by other tribes such as Gangte, Vaiphei, Simte, Zou, Mizo, Hmar, Thahdo. Speakers of Paite are also scattered in vast area of India such as Assam, Karbi Anglong, New Delhi, Bangalore and other cities of India.

Paite is the name of a tribe of composite clan and clan members of identical lineage and culture. The word Paite is merger of two words namely 'pai' – (to) go/march and 'te' – a collective marker, denoting 'the group of people going/marching.' Paite represent both the name of the people and the language i.e. 'Paite pau' – paite language, where 'pau' – language.

1.1. MIGRATION

The Paite speaking people under the Guite and Sukte claim their historical origin from Chimnuai (a place near Tedim city in Myanmar) the birthplace of Chief Guite. The Guites and Suktes were the ruling clans of Chimnuai and Tedim before the British came. These two

Chiefly clans of the Paite were affine. The Guites were wife givers and the Suktes were wife takers. The Guite territory is north of the Suktes and the Suktes south of the Guites. (Kamkhenthang.H. 1988:9)

In1840, Sukte Chief Khanthuam overpower the Guites and disturb the stability of control. To reinstate harmony the enduring mass bid Chiefship of Kamhau of Mualbem, son of Sukte Chief Khanthuam, of the emerging Sukte family.

However, in 1870 the great exodus of the Guites from and around Tedim area ensues, the people move in two routes. One group move northward and settle down around Mualpi under Chief Goukhothang and another group migrate to Lushai hills and settle among Lushais under Chief Poiboi. Several groups of Guites and other clans remain under the Sukte Chief Kamhau or the Hatlangs Chief.

The boundary demarcation between Burma (Myanmar) and Manipur in 1892 and later India and Burma attained their National Independence; these people became two nationalities.

The term Paite itself is imposed different significance. The first explanation goes, in the course of migration, an advanced group moved out followed by the second group. The second group called them 'PAIMASATE' meaning 'the people who went earlier or ahead' since they were unable to draw alongside them. Later the word 'PAIMASATE' diminutive to 'PAITE' but retains the meaning.

The second explanation is, in the process of migration, the group crossed over the Lushai hill and inhabited the eastern side of Guun river (at present officially known as Manipur river) .The Lusheis and the Hualngo call this group and other tribes 'Paihte' meaning. 'Paihte' is a derogatory designation given by Lusheis .'Paihte'is the Lushai version. (Zamzachin.G. 1992:5)

The third explanation is, a group of people living at Lamzang village planned to migrate across the Guun River. People from the same village went up to the bank to send them off and exclaimed, 'GUUN GALA PAITE EIVE UA', meaning '*they are the one who cross or go over the Guun river*'.

Subsequently this group of people who crossed the Guun River came to settle down in the virgin land at present within the political boundary of Manipur. The name Paite was undetermined and eventually the Government of India accorded recognition under the Constitutional Modification of Scheduled Tribes List of Manipur in 1956.

1.2. LANGUAGE AND SCRIPT

The onset of writing in Paite is the arrival of missionaries beginning of the 20th century notably Watkin.R.Roberts an independent missionary in 1906 at Senvon in Manipur, and Rev.J.H.Cope of American Baptist Mission who arrived at Tedim town in Chin hills, Burma (Myanmar) in 1910.The native people adopted roman script for written purpose initially from the missionaries. With the aid of colonials, various schools and churches established to provide education at the same time to spread Christianity.

For instance, In Burma (Myanmar) Rev.J.H.cope learned Tedim-Chin language and other local languages of the area and compiled the first primer in Tedim-Chin Language using roman script called 'Mang tual lai' and published portions of the gospel. In Manipur, W.R. Roberts in 1910, opened mission schools (with consent of Chief of Senvon), and translated the Gospel of St.John in Hmar language besides teaching the Good news of Gospel. The mission was then THAHDOU-KUKI PIONEER MISSION (1910-1924) later renamed as North East India General Mission (NEIGM) in 1924.

The birth of Independent church of India (ICI) under NEIGM amass natives of Paite,Hmar, Zou, Thahdo-Kuki, Lushai. The growth of number of tribes led to linguistic quandary. In 1948, a division of NEIGM into singular presbyteries conceded. Under this resolution, Paite held its first Paite Christian Conference in Kaihlam in 1949. In 1950, the Southeastern Area Presbytery changed to Manipur Christian Convention (MCC), then in the 1990's to Evangelical Convention Church (ECC), to Evangelical Baptist Convention (EBC) until date.

The embracing of Roman script marked the translation of gospel of St.John in Paite in 1937 by native speakers published by NEIGM followed by Translation of the first edition of Psalms in Paite, published by the Bible Society of India (BSI) in 1951. Then edited version of the New Testament printed in 1959 by BSI. In 1971, the complete Bible in Paite (minus Apocripha) translated.

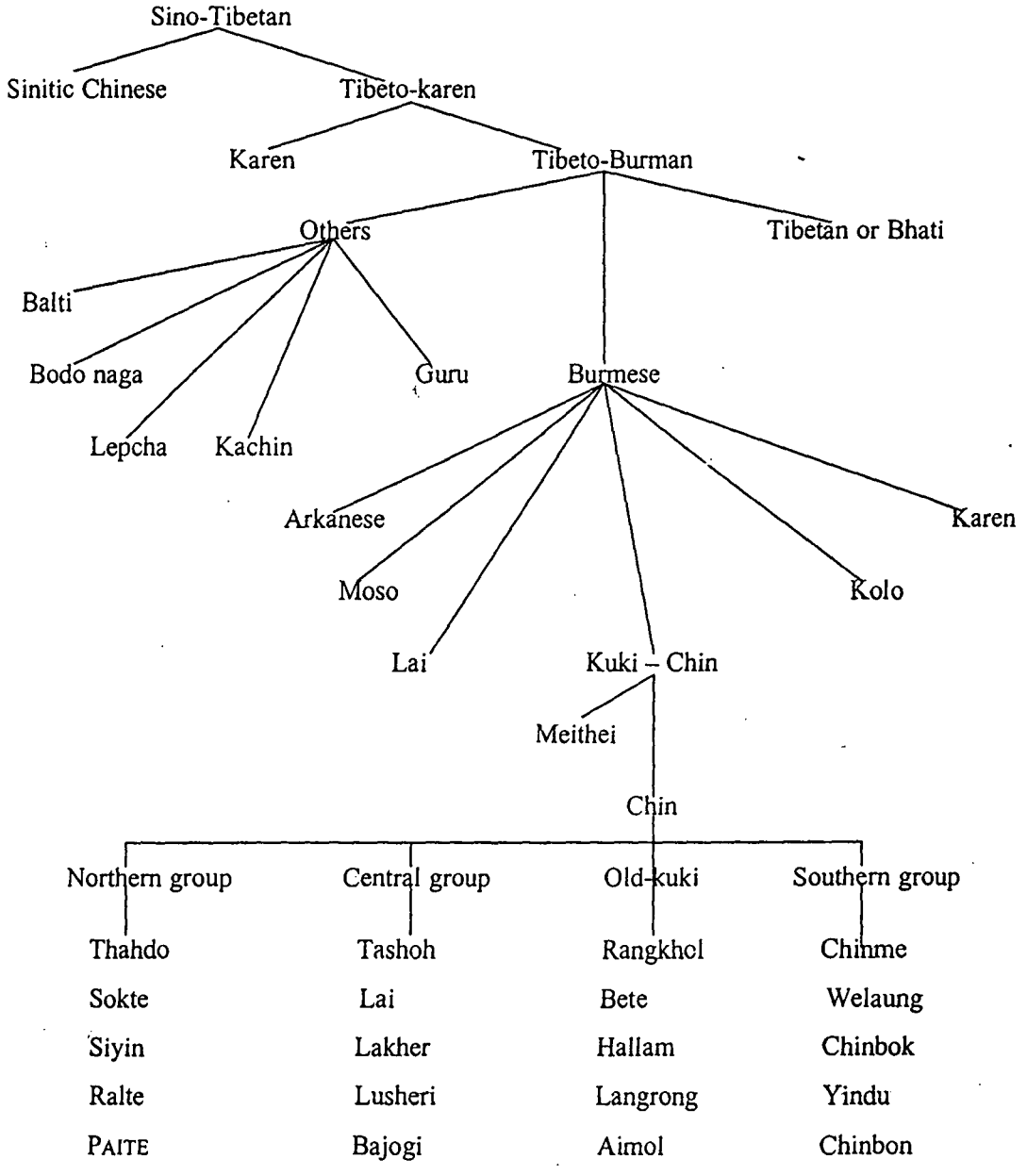
In the milieu, there is increasing consciousness on the development of Paite literature and grammar of the language. At present, the Paite language studied as MIL (Major Indian Languages) in schools from standard IX, X (since1999) till graduation level as compulsory paper in Manipur.

Nonetheless, Paite language does not have notable research on linguistic field mainly on the convergence of phonetics, phonology, morphology, syntax and socio-linguistic and so on. This linguistic realization has taken its base on the use of vowel *'o' and 'aw'* (a unique way of using vowel 'o' in the orthography), whether to use *'sun'* – daytime or *'suun'*- daytime etc, pathways to linguistic acknowledgement.

1.3. PAITE LANGUAGE

Paite language is SOV order resembling most of the Kuki-Chin of the Tibeto- burman Family. Similarly, Paite is a tonal language (lexical tone). A chart of languages belonging

to Tibeto-Burman family is below with the Ethnologue description of Paite language and the Geographical location of Paite tribes in a map at the end of this chapter.



Ethnologue[1] description of the language

Chin, Paite

A language of India

ISO 639-3: pck

Population	78,800 in India (2005). Population total in all countries: 91,800.
Region	Assam, Manipur, Churachandpur District, Khuga Valley, Copur Bazar; Mizoram, Aizawl District, Champhai Subdivision, 20 villages; Tripura. Also in Myanmar.
Alternate names	Haithe, Paite, Paithe, Parte, Zoukam
Dialects	Bukpi (Bukpui), Dapzal (Dapzar), Dim, Dimpi, Lamzang, Lousau, Saizang, Sihzang, Telzang (Teizang), Tuichiap.
Classification	Sino-Tibetan, Tibeto-Burman, Kuki-Chin-Naga, Kuki-Chin, Northern
Language use	Also, use Mizo.
Language development	Literacy rate in L1: 75%. Literacy rate in L2: 79%.Taught in primary schools. Dictionary. Grammar. Bible: 1971–2005.
Writing system	Latin script.
Comments	A Scheduled Tribe. Paites in Mizoram speak Mizo (Go 1996). Teizang and Dapzal dialects spoken by the majority (Singh 1995). 'Zomi' is a collective name Tedim Chin of Myanmar, Paite, and vaiphei of Manipur generally use to classify themselves. SOV. Swidden agriculturalists. Christian.

[1] Lewis,M.Paul(ed),2009.Ethnologue:languages of the world, Sixteenth edition. Dallas, Tex:SIL International. Online version: http://www.ethnologue.com/.

Also spoken in: Myanmar

Language name Chin, Paite

Population 13,000 in Myanmar (2007).

Region Tiddim area, Chin Hills.

Alternate names Hainte, Oarte, Paite, Paithe, Vuite

1.4. TYPOLOGICAL CHARACTERISTICS OF PAITE LANGUAGE

I) PAITE IS AN SOV LANGUAGE.

Examples:

1) zɔʔŋeu iṇ sazu a ḍelʔ

   zɔʔŋeu – iṇ sa - zu a ḍelʔ

   Cat NOM CLA- mouse AUX run after

   Cat is mouse run after (Literal)

   The cat ran after the mouse.

2) meɹi iṇ hai a lou

   maɹi – iṇ hai a lou

   mary NOM mango AUX pluck

   mary is mango pluck (Literal)

   Mary plucked the mango.

a) DIRECT OBJECT PRECEDES INDIRECT OBJECT.

Examples:

1) meɹi in hai ṭem iṇ a aːṭ

   meɹi – iṇ hai ṭem – iṇ a aːṭ

   mary NOM mango knife INSTR AUX cut

   mary mango with knife is cut (Literal)

Mary cut the mango with a knife.

2) zɔ:ɳ iɳ bɔl iɲɲ apaʈ a pe:kkʰja

zɔ:ɳ - iɳ bɔl iɲɲ a paʈ a pe:k kʰja

john NOM ball house PLPR ABL AUX kick away

John ball from the house kick away (Literal)

John kicked the ball away from the house.

b) RELATIVE CLAUSE PRECEDES THE HEAD NP.

Examples:

1) ʈe:bul ʈuŋ a peɳ saɳ ɔmpe:ɳ kei a ahi

ʈe:bul ʈuŋ a peɳ saɳ ɔm pe:ɳ kei - a a hi

table top at pen red present DEF 1SG -POSS it is

Table top at pen red it is mine (Literal)

The red pen that is on top of the table is mine.

2) pwaɳak səɳ əpa pɛɳ kə lom əhi

pwaɳ – a:k saɳ a pa: pe:ɳ ka lɔ:m a hi

Clothe worn red wear male DEF 1SG friend it is

Red shirt wearing male is my friend. (Literal)

The boy who is wearing red shirt is my friend.

c) STANDARD OF COMPARISON PRECEDES MARKER OF COMPARISON.

Examples:

1) ɖelhi zaipuɹ saŋiɳ a lum zɔ

ɖelhi zaipuɹ saŋ – iɳ a lum zɔ

delhi jaipur more than AUX hot more

delhi is more hot more than jaipur. (Literal)

Delhi is hotter than Jaipur.

2) meɹi ṭəṇja saŋin ə saŋ zo

meɹi ṭaṇja saŋ – iṇ a saŋ zɔ

mary tanya more than AUX tall more

mary more is tall more than tanya. (Literal)

Mary is taller than Tanya.

II) PAITE IS POSTPOSITIONAL LANGUAGE.

Examples:

1) pakṭe ḍɔ?ka:ṇ ṭuŋa? a ɔm u?

pak – ṭe ḍɔ?ka:ṇ ṭuŋ a? a ɔm u?

flower PL table up at AUX present PL/PERF

Flowers table up on they are. (Literal)

The flowers are on the table.

2) bazaɹ a? ka hɔ?

bazaɹ a? ka hɔ?

market at 1SG go

market at I go (Literal)

I went to the maket.

a) NEGATIVE MARKER IS POST VERBAL

Examples:

1) ka hɔŋ hɔ? kei ḍi

ka hɔŋ hɔ? kei ḍi

1SG come ECV NEG FUT

I come will not (Literal)

I will not come.

2) meɹi in lasa lɔu ḍi

meɹi – in la sa lɔu ḍi

meɹi NOM song sing NEG FUT

meɹi sing song will not (Literal)

Mary will not sing a song.

b) TENSE IN PAITE ARE POST-VERBAL.

Examples:

1) zi:ŋt͡sja? ka hɔŋ hɔ? ḍi u?

zi:ŋt͡sja? ka hɔŋ hɔ? ḍi u?

tomorrow 1SG come ECV FUT 1PL/INCL

Tomorrow come we will (Literal)

We will come tomorrow.

2) meɹi za:n̪ a paita

meɹi za:n̪ a pai – t̪a

mary yesterday AUX go PST/PERF

mary yesterday is went (Literal)

Mary went yesterday.

c) YES - NO QUESTION ARE POST-VERBAL

Examples:

1) hjai n̪a ḍei? hja?

hjai n̪a ḍei? hja

this 2SG like INTR

This do you like? (Literal)

Do you like this?

2) kə hɔŋluṯ tʰei ḏjam ?

kə hɔŋ luṯ tʰei djam

1SG come enter able INTR

I come inside can? (Literal)

Can I come in?

d) POST POSED COMPLIMENTIZER

Examples:

1) ka pain zu ḏɔ:ṇ hɔi? lɔu ahi t͡si? a hɔṇ hil?

ka pa – iṇ zu ḏɔ:ṇ hɔi? lɔu a hi t͡si? a hɔṇ hil?

1SG father NOM alcohol drink good NEG it is said 2SG PAT tell

My father drinking alcohol is not good he told me (Literal)

My father told me that alcohol is not good for drinking.

2) ama? kjaŋa? ama? ami hɔi?lwa t͡si? ka ge:ṇ u?

ama? kjaŋ a? ama? a mi hɔi? lwa t͡si? ka ge:ṇ u?

3PL near at 3SG AUX person good very that 1SG tell 1PL/INCL

That he is a very good person we told him (Literal)

We told him that he is a very good person.

III) PAITE IS A PRO-DROP LANGUAGE

Examples:

1) ṇiṭeŋ iṇ aṇṇ ka ne

ṇiṭeŋ – iṇ aṇṇ ka ṇe

everyday TEMPR food 1SG eat

Everyday food I eat (Literal)

I eat food every day.

2) ṭuṇi iṇ sikul ka kai

ṭuṇi – iṇ sikul ka kai

today TEMPR school 1SG go

Today to school I go (Literal)

I go to school today.

IV) TIME ADVERBIALS FOLLOW PLACE ADVERBIALS.

Examples:

1) zi:ŋt͡sja? na iṇṇ wa? ka hɔŋ hɔ? ḍi.

zi:ŋt͡sja? na iṇṇ wa? ka hɔŋ hɔ? ḍi.

tomorrow 2SG house at 1SG PAT come FUT

Tomorrow to your house I will come. (Literal)

I will come to your house tomorrow.

2) seppaṭṇi t͡sjaŋiṇ ɔfis ka kai paṇ ḍi

sep paṭ ṇi t͡sjaŋ – iṇ ɔfis ka kai paṇ ḍi

work start day then TEMPR ɔfis 1SG attend start FUT/IMPF

Monday and I will start going to ofis. (Literal)

I will start going to office from Monday.

V) PLURALITY OF NOUNS IS SENTENCE FINAL.

Examples:

1) zi:ŋt͡sja? siṇema eṇ ḍiŋiṇ ka hɔ? ḍek u?

zi:ŋt͡sja? siṇema eṇ ḍiŋ – iṇ ka hɔ? ḍek u?

tomorrow cinema look for to 1SG go FUT/IMPF 1PL/INCL

tomorrow to see cinema we will go (Literal)

We will go to the cinema tomorrow.

2) zi:ŋ͡tsja? siṇema eṇ ḍiŋiṇ i hɔ? ḍi u?

zi:ŋ͡tsja? siṇema eṇ ḍiŋ – iṇ i hɔ? ḍi u?

tomorrow cinema look for to 2SG go FUT/IMPF 2PL/EXCLU

Cinema to see we will go tomorrow (Literal)

We will go to the cinema tomorrow.

V) ADJECTIVES, MODIFIERS, NUMERALS FOLLOW THE HEAD NP

Examples:

a) [ṇaupaŋ pasal hɔi?] – good boy

[ṇaupang] – children [pasal] – boy [hɔi?] – good

b) [naupaŋ sɔ:mt^{h}um] – thirty children

[ṇaupaŋ] – children [sɔ:m] – ten [t^{h}um] – three

c) [saka:p] – hunter

[sa] – meat [ka:p] – (to) shoot

1.5. SCOPE AND OBJECTIVE

The objective of the study is to provide elements of word phonology of paite. This study append to previous research done on the language. The study would provide the basic sound system of the language, an instrumental analysis of tone of isolate words and stress pattern, also the structure of the syllable and syllabification.

The span of an arboreal view of the word phonology of the language, dissect from maximum word list of isolated word to polysyllables is given indistinct of loan or native word. Nevertheless, the main aim is to bring out the structure of sound system in the language.

Some description on *aspects of morphophonemic process in Paite* (Kumar, Rahul, 2001) and *aspects of phonology and morphophonemic changes in Paite* (Asamidinova,Ainura) are the notable works on the language so far. The insightful study on Phonology proper overlook lately. The concern lies at this point for this study as well as for further study on the language in Phonology.

1.6. METHODOLOGY

The main mode of this study is collection of data and analyses of data. Analysis is rather instrumental for tones specifically. Data for this study acquired in the form of basic word lists from "*a manual of linguistic fieldwork and structure of Indian languages*" (Abbi, Anvita, 2001) and from *the lingua descriptive studies questionnaire* (typological tool for field linguistics) body parts, natural objects, animal and plant questionnaires as provided is used.

The collection of data involves word-by-word transcription of sounds uttered by the informants. The analytical part involves, primarily listing of sounds present in the language (both consonants and vowels) and selection of minimal sound pair i.e. pairs of words that differ only in one sound.

Examples in Paite : [kaŋ] – (to) bake/fry/stretch [gaŋ] – uncle

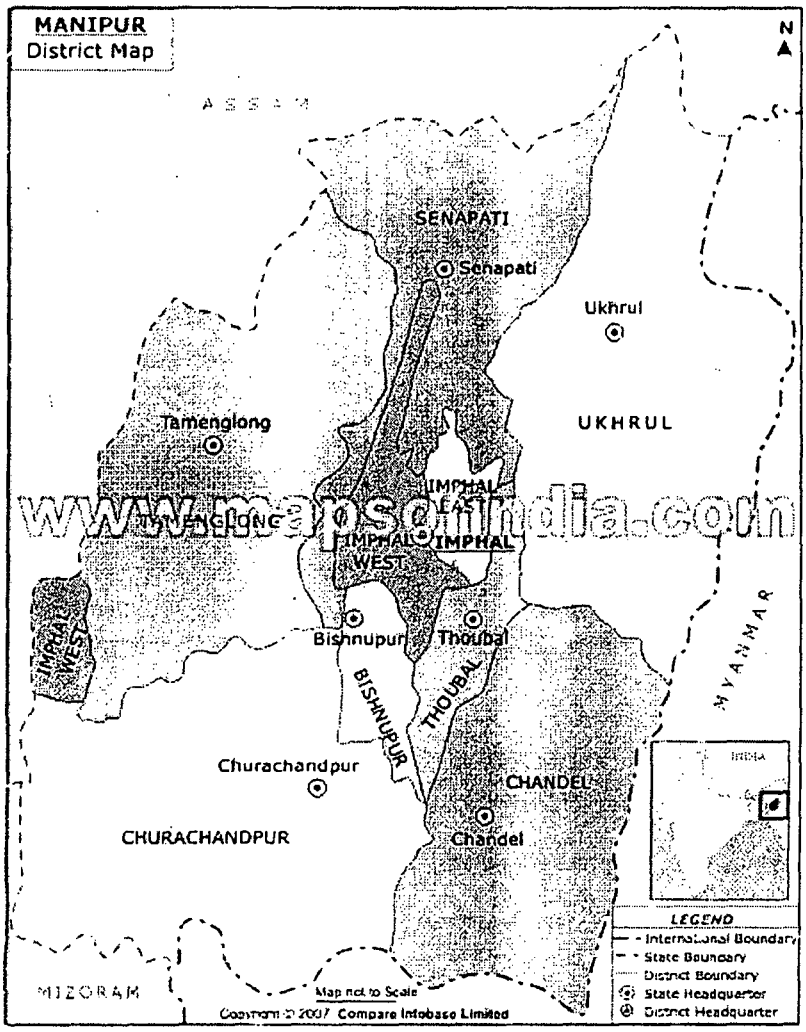
[pai] – (to) go [bai] – (to) limp

In this manner, the sounds of the language are separated into consonants and vowels followed by the analyses of sounds according to their distribution in a word largely at word initial, medial and final position after which descriptions and generalizations being made.

For tone, minimal pairs of words with contrasting pitch and meaning selected. The word list comprise of simple words to complex words (monosyllabic) numbering fifteen each of contrasting pitch and meaning (minimal pairs) for the study. This data for acoustic study recorded in JNU language laboratory and the mechanical analysis and graphic representation for the following features such as pitch contour mean absolute slope and pitch contour is annotated using different computer software. Three instances of each word in isolation and complex form is recorded using EDIROL R-44 audio recorder with built in microphone or the data directly recorded into a computer (DELL 14R BIOS version A05) using PHILIPS SHM 3300 attached to the computer. The recorded data then digitalized, analyzed, and annotated using PRAAT 5.1.01 version. For the study of the fundamental frequency (Fo), *the initial fundamental frequency* i.e. the starting point of pitch contour, *the final fundamental frequency* i.e. the finishing point of pitch contour and *average pitch contour slope* is noted down using MS EXCEL SPREADSHEET.

Finally, the pitch contour and waveform of the recorded sound of different pitch mapped and copied in MS WORD SHEET.

The main study divided into different topics - The first topic is the sound system of Paite. Tone and stress as the second topic and syllable structure and syllabification as the last topic.



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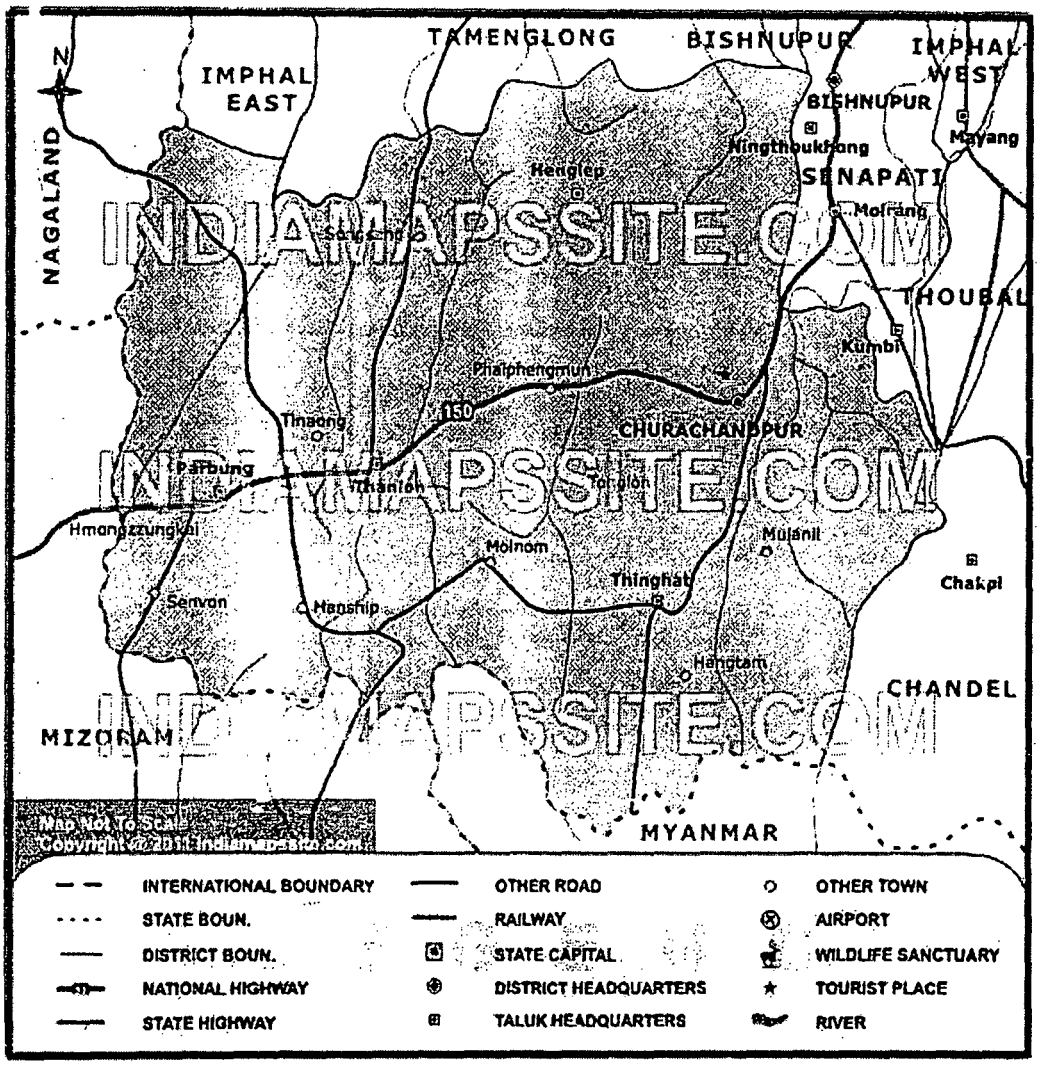

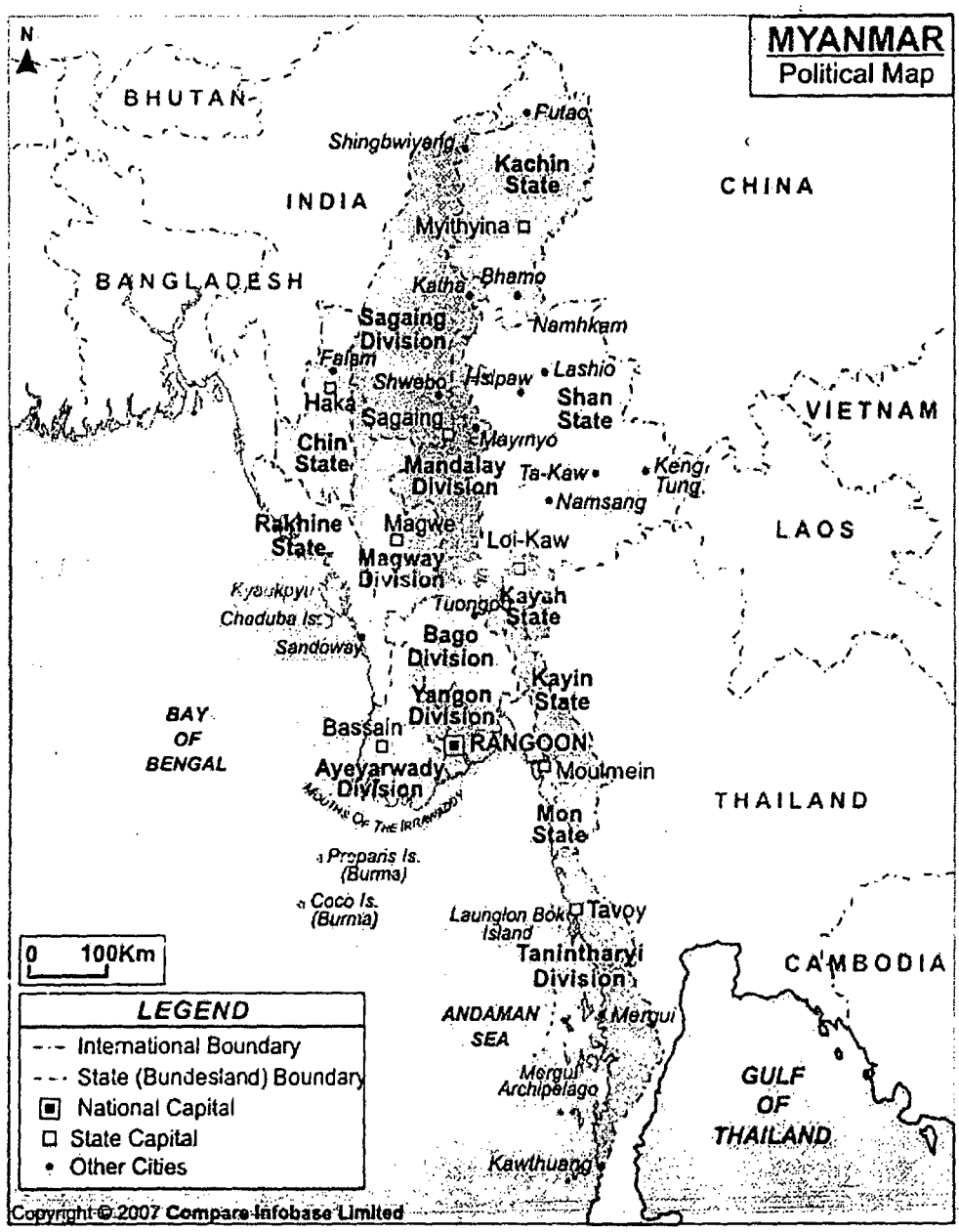
MYANMAR
Political Map
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BHUTAN
INDIA
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CAMBODIA
Putao
Shingbwiyang
Kachin State
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Magwe
Loi-Kaw
Magway Division
Kyaukpyu
Chaduba Is.
Tuongup
Kayah State
Sandoway
Bago Division
Kayin State
Yangon Division
BAY OF BENGAL
Bassain
RANGOON
Moulmein
Ayeyarwady Division
Mon State
Preparis Is. (Burma)
Coco Is. (Burma)
Launglon Bok Island
Tavoy
Tanintharyi Division
ANDAMAN SEA
Mergui
Mergui Archipelago
GULF OF THAILAND
Kawthuang
0 100Km
LEGEND
International Boundary
State (Bundesland) Boundary
National Capital
State Capital
Other Cities
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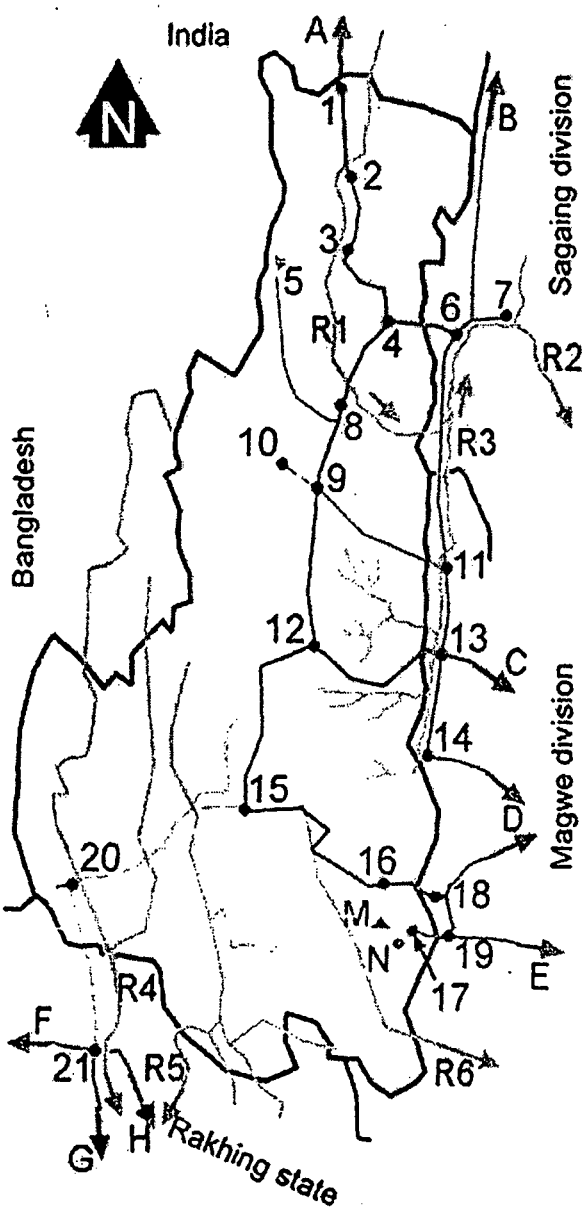
CHIN STATE MAP



1 = Chikha (Border town with India)
2 = Ton Zang
3 = Tiddim (Teddim)
4 = Thaine-Ngin
5 = Yeh Lake (heart shape lake)
6 = Kale (Sagaing division)
7 = Kalewa (Sagaing division)
8 = Falam
9 = Hakha (Capital of Chin state)
10 = Htan-ta-Lang
11 = Kan (Magwe division)
12 = Aika
13 = Gan Gaw (Magwe division)
14 = Hti Lin (Magwe division)
15 = Matupi (Madupi)
16 = Mindut
17 = Kanpetlet
18 = Yaw (Magwe division)
19 = Saw (Magwe division)
20 = Paletwa
21 = Kyauk Taw (Rakhine state)
M = Nat Ma Taung (Mt. Victoria at 3100 meters)
N = Nat Ma Taung national park
R1 = Manipu river
R2 = Chindwin river
R3 = Myit Tha river
R4 = Kaladan or Kitsapanadi river (flows into Bay of Bengal)
R5 = Laymyo river (flows into Bay of Bengal)
R6 = Mone stream
A = To India (Imphal)
B = To Tamu (border town)
C = To Monywa, Pakokku
D = To Pakokku, Ayeyarwaddy river

E = To Seikphyu, Chuk, Sale, Ayeyarwaddy river
F = To Buthi-Taung town (Border with Bangladesh)
G = To Sittwe (capital of Rakhine state)
H = To Mrauk U (Mrauk Oo)

CHAPTER 2

SOUND SYSTEM OF PAITE

This chapter is the classification of speech sounds of Paite consonants and vowels.

2.1. CONSONANTS

Phonetically, consonant are sound made by a closure or narrowing in the vocal tract so that airflow is either completely blocked, or so restricted that audible friction is produced. From a phonological point of view, consonants are units that function at the margins of syllables, either singly or in clusters. (David Crystal 1985)

The lexical tones in isolation marked in the following manner:

a) (M) mid tone – unmarked

b) (H-L) a falling tone marked as ̀ and

c) (L-H) a rising tone marked as ́.

MINIMAL PAIRS OF CONSONANTS

1) /p/ and /b/

[paṭ] - cotton [baṭ] – debt

2) /b/ and /p/

[bù:l] - broken [pù:l] - plague

3) /ṭ/ and /ḍ/

[ṭá:l] - slipping [ḍá:l] - (to) block

4) /k/ and /g/

[kɔi] - (to) embrace [gɔi] - (to) grind

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5) /p/ and /p^h/

[pak] - Flower [p^hak] – leprosy

6) /t̪/ and /t^h/

[t̪a] - Son/daughter [t^ha] - energy/muscle

7) /t^h/ and /p^h/

[t^hú:k] - sour [p^hú:k] - (to) cut off

8) /t^h/ and /k^h/

[t^héi] - fruits [k^héi] - minor surgery

9) /t͡s/ and /d̪/

[t͡sí:ŋ] – cane [d̪í:ŋ] – will do

10) /pj/ and /bj/

[pjaŋ] - born [bjaŋ] – cheeks

11) /kw/ and /gw/

[kwáŋ] - burning [gwáŋ] - (to) put in/ insert

12) /m/ and /n̪/

[mai] - pumpkin [nai] – pus

13) /ŋ/ and /m/

[ŋai] - (to) love/like [mai] - pumpkin

14) /n̪/ and /ŋ/

[n̪àm] - (to) smell [ŋàm] - guts /courage

15) /s/ and /z/

[sum] - money [zum] - pointed/shy

16) /ɹ/ and /l/

[ɹɔ́ŋ] - colour [lɔ́ŋ] - seeker/touched

Non-minimal pair forming consonants in Paite:

/ʔ/ -[saʔ] - thick

/h/ - [ha] - teeth

/f/ - [fél] - efficient

Table 2.1. THE CONSONANT PHONEMES OF PAITE AS REPRESENTED IN THE CHART AS BELOW

Consonants (pulmonic)

Place → / Manner ↓	Bilabial		Labio-dental		Dental		Alveolar		Post-alveolar		Palatal		Velar		Glottal	
	vl	vd	vl	vd	vl	vd	vl	vd	vl	vd	vl	vd	vl	vd	vl	vd
Plosive																
-Aspirate	p	b			t̪	d̪							k	g	ʔ	
+Aspirate	p^h				t^h								k^h			
Nasal		m				n̪								ŋ		
Fricative			f	v			s	z								h
Affricates					t͡s											
Approximant									ɹ			j		ʷw		
Lateral approximant								l								

2.2. PHONETIC DESCRIPTIONS OF CONSONANTS OF PAITE

1) In Paite, stops such as /t̪/ and /d̪/ are laminal with contact both on the teeth and on the front part of the alveolar ridge.
2) The articulation of nasal /n/ which is alveolar tends towards dental i.e. apical region of the tongue touches the back of the front teeth /n̪/
3) Un-aspirated stops /p/ and /b/, oral nasal /n̪/ articulated with upper and lower lips touching each other.
4) Glottal stop /ʔ/ articulated with vocal cords held together and air escapes only through mouth.
5) Rhotic /ɹ/ in Paite, produced with raised crown of the tongue touching the post-alveolar region.
6) Fricatives /f v/ articulated with the upper teeth touching the lower lip.
7) Alveolar fricatives /s z/ articulated with blade of the tongue touching the alveolar ridge.
8) Affricates /t͡s/ in Paite is an intermediate category between simple stop /t̪/ and fricative /s/ articulated with blade of tongue touching the alveolar ridge and both teeth producing frication noise.
9) Approximant /j/ articulated with middle part of the tongue partially raised toward post alveolar region.
10) Approximant /w/ articulated with back part of the tongue raised towards the velum (soft palate) and the lips rounding.
11) Lateral /l/ articulated with the tip of the tongue touching the alveolar ridge.
12) Glottal fricative /h/ articulated without vocal folds held together without any stricture.
13) Voiceless aspirates /p^h t^h k^h/ articulated with abduct vocal folds producing clear puff of air.

2.3. PHONOTACTICS

Phonotactics refer to the specific arrangements (or tactic behavior) of sounds or phonemes which occur in a language or the phonological constraints on what sounds can appear in what position in a given language. The phonotactics of consonant of Paite as below-

PHONOTACTICS OF CONSONANTS

	phoneme	Initial	Medial	Final	#C	C#
1	/p/	[pe̱t̲]-(to)bite	[papí]-married man	[kap]-(to)cry	[kumpipá]-king/ruler	[ga:pn̥éi]-leguminous plant
2	/b/	[bjal]-round	[làibú]-book	[ab]-mold	[bílba?]-earrings	
3	/t̲/	[t̲ampí]-many	[t̲wàit̲e:ŋ]-wild mango	[kɔ́:t̲]-wet	[manto:m]-cheap	[mit̲del]-blind
4	/d̲/	[d̲ɔ:n]-drink	[mid̲áŋ]-others		[kaŋd̲am]-cactus	
5	/k/	[keu]-dry	[avekin̥]-all	[ké:k]-torn	[siŋkúŋ]-tree(s)	[a:ksí]-star
6	/g/	[gját̲]-eight	[sega?]-nuts		[saŋgam]-siblings/brotherhood	
7	/ʔ/		[n̥a?t̲aŋ]-banana	[ha?]-(to)clean		[bu?pɔ:l]-hay
8	/m/	[mái]-face	[t̲àimà]-	[t̲em]-		[gamsá:]-animal

			hardworking	knife		
9	/n/	[n̪uŋ]-back	[saṇà]-watch	[húṇ]-time	[luŋn̪ɔ́u]-caterpillar/worms	[maṇṭám]-expensive
10	/ŋ/	[ŋɔu]-white	[siŋá:ṭ]-(wood)cutting	[hɔŋ]-open	[zɔʔŋèu]-cat	[ṭaŋmai]-cucumber
11	/ɹ/	[ɹɔ́ŋ]-colour	[d̪aɹeŋ]-gold			
12	/f/	[fél]-efficient	[faìfú:k]-whistle			
13	/v/	[vɔm]-black	[savúṇ]-animal skin		[aṇṇvùy]-flour	
14	/s/	[sél]-sprout	[n̪asep]-work		[a:ksá]-chicken(meat)	[iskúṭ]-squash
15	/z/	[zúŋ]-root	[sazùk]- deer		[siŋzɔ:l]-wood	
16	/h/	[hiŋ]-alive	[sahaŋ]-tiger		[buʔhùm]-unhusked(rice)	
17	/l/	[ljam]-injury	[silwàŋ]-[deadbody	[gu:l]-snake	[limlàŋ]-mirror	[malṭà]-chilli
18	/k^h/	[k^ha]- spirit	[meik^hú]-smoke		[kɔŋk^hák]-door	

19	/tʰ/	[tʰat]-(to)kill	[patʰjan]-God		[meʔtʰúk]-tomato	
20	/pʰ/	[pʰim]-needle	[upʰɔk]-frog		[sámpʰɔk]-bitter brinjal	
21	/t͡s/	[t͡sjáŋ]-stick	[hwàit͡sjáʔ]-then		[azjàkt͡suʔ]-because	

2.4. DESCRIPTION OF PHONOTACTICS OF PAITE CONSONANTS

1) Coda consonants: Consonants, which occupy coda of a syllable in Paite-

Stops	Nasals	Laterals
/p/	/m/	/l/
/t̚/	/n̚/	
/k/	/ŋ/	
/ʔ/		

2) Non-initial and non-inter vocalic consonants – consonant which do not occupy word medial and final position in a syllable.

Non-initial consonant: glottal stop /ʔ/ and palatal approximant /j/

Non-intervocalic consonant: Approximants /j/ and /w/

2.5. CONSONANT CLUSTERS

Sequences of two or more consonants that have no intervening vowels are consonant clusters. In Paite consonant clusters occurs word initially and finally. Word medial clusters are exceptionally rare and only few.

a) Word initial consonant clusters -

- Labial clusters :

  [pw] - [pwáŋ]-clothes

  [p^hw] - [p^hwàŋ]-froth

  [bw] - [bwà]-(to) throw/discard

  [mw] - [mwát]-rot/rotten

  [vw] - [vwa?]-rain

- Labial coronal clusters:

  [tw] - [twám]-different

  [t^hw]-[t^hwa?]-(to) insert/double

  [nw] - [nwái]-below

  [lw] - [lwaŋ]-corpse/flowing

  [sw] - [swáŋ]-stone

  [zw] - [zwak]-(to)sell

- Dorso-labial clusters:

  [kw] - [kwáŋ] -burning

  [k^hw] - [k^hwak]-(to) dig

  [gw] - [gwa]-bamboo

- Dorso – coronal clusters:

  [lj] - [ljàn̪]-big

  [zj] - [zjal]-(to) mesh/tangle

  [sj] - [sjál]-raw

  [t͡sj] – [t͡sjáŋ]-stick

- Coronal labial clusters:

  [pj] – [pjá]-(to) give

  [bj] – [bjà]-(to) worship

  [mj] – [mjál]-dark

  [vj] – [vjàl]-(to) hover

- Dorsal clusters:

  [kj] – [kjà]-(to) fall

  [k^{h}j] – [k^{h}jà]-(to) drop/to let it fall

  [gj] – [gjal]-hailstone

  [ɲj] – [ɲjá] – hyena

b) Word final consonant cluster

  [l?] – [hyl?]-(to) tell [kal?]-(to) lock/hinder

  [n̪n̪] – [ínn̪]-house/home [áɲn̪]-food/rice

c) Word medial consonant clusters

  [sk̪] – [iskút̪]-Squash

  [ks] – [a:ksí]- Star

  [nt̪] – [maɲt̪a] – Brinjal

  [mp] –ma:kpá – son-in-law

2.6. DESCRIPTIONS OF CONSONANT CLUSTERS IN PAITE:

1) Word initial clusters are formed by clusters of palatal and labial velar approximant [/j/ and /w/] following any other consonant except for the following consonant :

   Post-alveolar approximant /ɹ/

   Glottal stop /ʔ/

   Labio-dental fricative /f/

2) Consonants such as /t̪/, do not form cluster word initially with palatal approximant /j/.

3) Consonant /t͡s/ do not form cluster word initially with labial velar approximant /w/

4) Word final consonant clusters are dental nasal [n̪n̪] and lateral-glottal [lʔ]

5) Word medial clusters are [ks] a velar stop and alveolar fricative, [sk] an alveolar voiceless fricative and velar cluster, [nt̪] a dental nasal and a voiceless dental stop and [kp] a voiceless velar and voiceless bilabial stop.

6) Geminate consonants are word final with a dental nasal.

   For example: [n̪n̪] - [án̪n̪] – food/rice

7) Homo-organic consonants occurs word initially, medially and finally.

For example:

Word initial – dorsal clusters

[kj] - [kjà]- (to) fall

[gj] - [gjal]-hailstone

Word medial - [n̪t̪] - [man̪t̪a] – brinjal

Word final - [n̪n̪] - [án̪n̪] – food/rice

8) Major word medial clusters in Paite are mainly due to disyllables or polysyllables cluster. Some examples below:

Disyllable	Pollysyllable
a) /ʔt̪ʰ/ - [meʔt̪ʰú:k] – tomato [meʔ]-curry [t̪ʰu:k]-sour	/ms/ - [gamsaha:ŋ]- tiger/lion [gam]-land/forest [sá:]-meat [ha:ŋ] - wild
b) /ml/-[li:m!àŋ]-mirror [lì:m]-shadow [làŋ]-show/appear	/kt͡s/-[azjakt͡suʔ]- because [a]- is/the [zjàk]-reason [t͡suʔ]-this/that
c) /ŋn̪/-[luŋn̪ɔ́]-caterpillar/worms [lúŋ]-catepillar [nɔ́]-young/infant	/n̪ɹ/-[san̪d̪a:ŋɹɔ́ŋ]- pink colour [san̪]-red [d̪á:ŋ]- pink [ɹɔ́ŋ]-colour

TABLE 2.2. PERMISSIBLE CONSONANT CLUSTERS OF PAITE (word initial, medial, and final)

	p	t̪	k	s	ʔ	n	j	w
p							pj	pw
b							bj	bw
p^h							p^hj	p^hw
t̪								t̪w
$t̪^h$							t^hj	$t̪^h$w
k	kp			ks			kj	kw
k^h							k^h	k^h
g							gj	gw
m							mj	mw
n		n̪t̪				n̪n̪	nj	nw
ŋ							ŋj	ŋw
v							vj	vw
s			sk				sj	sw
z							zj	zw
h							hj	hw
t͡s							t͡sj	
l					lʔ		lj	l̪w

2.7. CONSONANT ALLOPHONES OF PAITE

Allophones are variants of the same phoneme or the phonetic realization of a phoneme in a particular environment. Consonant allophones of Paite:

a) Whenever a voiceless aspirated velar stop /k^h/ follows a back unrounded vowel /a/, /k^h/ is realized as a voiceless velar fricative /x/ in Paite. For example:

/k^h/ → [x] / __ [a]

[k^há:]-bitter → [xá:] - bitter

[k^ha?]- (to) loosen → [xa?]- (to) loosen

[k^hau]-thread → [xau]-thread

[k^hám]-drunk → [xám]-drunk

[k^há:p]-hand span → [xá:p]-hand span

[x] and [k^h] are in *complementary distribution* in Paite, where [k^h] becomes [x] before vowel /a/, [k^h] occurs elsewhere. Therefore, /k^h/ has two allophones in Paite, [k^h] and [x]. [x] Before a low front vowel /a/ and [k^h] elsewhere in the syllable.

b) A voiceless plosives /p/, /t/, /k/ realized as voiceless aspirated stop /p^h/, /t^h/, /k^h/ word finally. For example:

/ k / → [k^h] / __ ##

[pak]-flower → [pak^h] -flower

[t^hak]-new → [t^hak^h] -new

[saik]- hiccup → [saik^h] –hiccup

/p/ → [p^h]/__ ##

[lusíp]-Fontanel → [lusí:p^h]-Fontanel

[t̪ap]- hearth → [t̪ap^h]-hearth

[kap]- (to) cry → [kap^h] -(to) cry

/t̪/ → [t^h]/ __##

[t^hat]-(to) kill → [$t^h at^h$]-(to) kill

[vut̪]-ashes → [vut^h]-ashes

[k^hat̪]-one → [$k^h at^h$]-one

Aspirated stops /p^h/, /t^h/, /k^h/ are allophone of voiceless plosive /p t̪ k/ where /p/, /t̪/, /k/ is /p^h/, /t^h/, /k^h/ word finally. They are in complementary distribution.

2.8. PHONEMIC FEATURES OF CONSONANTS:

Phonemic features are phonetic features whose presence or absence can alter meaning. Feature template make positive or negative indication to a permutation of phonological features like fricative, voice, affricates etc, and such combination specify natural classes. Phonological representation is sequences of segments made up of distinctive feature (Chomsky and Halle 1968, the sound pattern of English). The features describe aspects of distinct articulator phonemes, from a universally fixed set with binary values (+) or (-), and grouped the natural classes of segments they describe into -

- Major class features
- Laryngeal features

- Manner features
- Place features

Therefore, a positive value, [+] denotes the presence of a feature while the negative value [-] indicate its absence.

CONSONANT FEATURE OF PAITE:

A) MAJOR – CLASS FEATURE: features that classify segments into segment type like 'vowel' and 'obstruent'.

1) [Consonantal] – [+cons] segments have a constriction somewhere along the centre line in the vocal tract.

- [+cons] segments of Paite – [/p/,/b/,/t̪/,/d̪/,/k/,/g/,/pʰ/,/tʰ/,/kʰ/,/m/,/n̪/,/ŋ/,/f/,/v/,/s/,/z/,/t͡s/,/ɹ/,/l/]
- [-cons] segments of Paite – [/j/, /w/, /ʔ/, /h/,] and [/i/,/y/,/e/,/a/,/ɔ/,/u/]

2) [Sonorant] – [+son] segments are produce with a constriction in the vocal tract that allows the air pressure behind it and in front of it to be relatively equal.

- [+son] segments of Paite – [/w/,/j/,/ɹ/,/l/,/n̪/,/m/,/ŋ/] and [/i/,/y/,/e,/a/,/ɔ/,/u/]

3) [Approximant] – [+approx] are those segments that have a constriction in the vocal tract, which allows a free (frictionless) escape of air.

- [+approx] segments of Paite – [/l/,/ɹ/,/w/,/j/]

B) LARYNGEAL FEATURES:

1) [Spread glottis] - produced with vocal cord configuration forming audible glottal friction.

- [+spread glottis] segments in Paite are: [/pʰ/,/tʰ/,/kʰ/,/h/]

2) [Constricted glottis] - produced with vocal cords tense and drawn.

- [+constricted glottis] segments in Paite are /ʔ/

[Voice] - Articulation involves vocal cord vibration. The laryngeal segments are unspecified for voicing in Paite.

C) MANNER FEATURES:

1) [Continuant]: [+Cont] segments lack central occlusion in the vocal tract.

- [+cont] segments in Paite - [/f/, /v/, /s/, /z/, /h/]

2) [Delayed release]: sound refers to the period of semi-closure during which frication noise is produce.

- [+delayed release] segments in Paite - [/t͡s/, /f/, /v/, /s/, /z/]

3) [Nasal]: sounds produced with the velum (soft palate) lowered.

- [+nasal] segments in Paite - [/m/, /n̪/, /ŋ/]

4) [Lateral]: sounds produced with a central tongue contact in the cavity with one or both sides of the tongue held away from the roof of the mouth.

- [+lateral] segments in Paite - /l/

D) PLACE FEATURES:

1) LABIAL: segments articulated with the lips, and specified for [round].

- [+round] segments in Paite - /w/

2) CORONAL: segments articulated with raised crown of the tongue, i.e. a raised tip and/or blade. Coronals are specified for features [+/-anterior] [+/-Distributed] and [+/-strident].

- [Anterior] - Tip/blade of the tongue touches the alveolar ridge or somewhere further forward.

  [+anterior] segments in Paite are [/t̪/, /d̪/, /n̪/, /s/, /z/]

- [Distributed] - produced with a constriction that extends for a relatively great distance along the vocal tract.

  [+distributed] segments in Paite are [/t̪/, /d̪/, /n̪/, /ɹ/, /l/]

- [Strident] - The airstream channel through a groove in the tongue blade and blown at the teeth.

  [+strident] segments in Paite [/p/,b/,/t̪/,/d̪/, /pʰ/, /tʰ/, /n̪/, /f/, /v/,/s/, /z/, /t͡s/]

3) DORSAL: sounds articulated with bunched dorsum.

- [high]- Segments raised the dorsum to a position close to the roof of the mouth

  [+high] segments in Paite are [/k/, /g/, /kʰ/, /ŋ/, /j/, /w/]

- [back]- Segments have the bunched of the tongue positioned at the centre or further back.

  [+back] segments in paite are [/k/, /g/, /ŋ/, /w/, /j/]

TABLE 2.3. CONSONANT FEATURE OF PAITE

Sounds → / Feature ↓	p	b	t̪	d̪	k	g	p^h	t^h	k^h	m	n̪	ŋ	f	v	s	z	t͡s	l	ɹ	j	w	h	ʔ
[Consonant]	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	-	-	+	+
[sonorant]	-	-	-	-	-	-	-	-	-	+	+	+	-	-	-	-	-	+	+	+	+	-	-
[Continuant]	-	-	-	-	-	-	-	-	-	-	-	-	+	+	+	+	-	-	+	+	+	+	-
[Delayed release]	-	-	-	-	-	-	-	-	-	-	-	-	+	+	+	+	+	-	-	-	-	-	-
[Nasal]	-	-	-	-	-	-	-	-	-	+	+	+	-	-	-	-	-	-	-	-	-	-	-
[Lateral]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+	-	-	-	-	-
[voice]	-	+	-	+	-	+	-	-	-	+	+	+	-	+	-	+	-	+	+	+	+	-	-
[Spread glottis]	-	-	-	-	-	-	+	+	+	-	-	-	-	-	-	-	-	-	-	-	-	+	-
[Constricted glottis]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+
[Anterior]	-	-	+	+	-	-	-	+	-	-	+	-	-	-	+	+	-	-	-	-	-	-	-
[Distributed]	+	+	+	+	-	-	+	+	-	-	+	-	+	+	+	+	+	-	+	-	-	-	-
[Strident]	-	-	-	-	-	-	-	-	-	-	-	-	+	+	+	+	+	-	-	-	-	-	-
[high]	-	-	-	-	+	+	-	-	+	-	-	+	-	-	-	-	-	-	-	+	+	-	-
[back]	-	-	-	-	+	+	-	-	-	-	-	+	-	-	-	-	-	-	-	+	+	-	-

2.9. VOWELS

Phonetically vowels are sounds articulated without a complete closure in the mouth or a degree of narrowing, which would produce audible friction; the air escapes evenly over the centre of the tongue. If air escapes solely through the mouth the vowels are oral; if some air is simultaneously through the nose, the vowels are nasal. From the phonological point of view, vowels are those units that function at the centre of syllables, sound that forms the peak of a syllable. The vowels that constitute the peak of a syllable could be a single sound known as monopthong or a gliding sound known as diphthong or trip thongs.

2.10. VOWELS OF PAITE (MONOPTHONG)

There are ten (6) oral vowels in Paite, as follows:

a) Vowel /i/: vowel /i/ is a near close front unrounded vowel.

For example - [ik] - hiccup

b) Vowel /y/: vowel /y/ is a close front rounded vowel.

For example - [yp]- rug sack

c) Vowel /e/: vowel /e/ is a near close mid unrounded vowel.

For example - [én]-(to) look at/ see

d) Vowel /a/: vowel /a/ is a low back unrounded vowel.

For example - [aŋ] - bosom

e) Vowel /ɔ/: vowel /ɔ/ is open-mid back rounded vowel.

For example - [ɔk] – (to) wear/ put on

f) Vowel /u/: vowel /u/ is a close back rounded vowel

For example - [ùm]- (to) ferment

Vowel length is a prominent defining feature of Paite vowels and vowel length is phonemic. Examples as below:

a) [saik] – hiccup [sai:k] – rib bone (of an animal)

b) [ym] – cannot urinate [ý:m] – secretive/(to) hold back

c) [eŋ] – yellow [é:ŋ] – light /bright

d) [àm]- irritated [á:m] – savour (time)

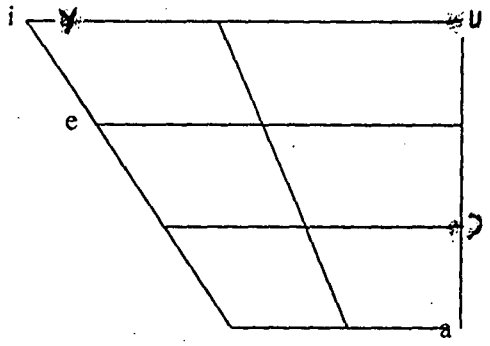
e) [ɔl] – easy [ɔ́:l] – slow

f) [um] – (to) ferment [ú:m] – (to) cover/ fenced

VOWEL INVENTORY OF PAITE

	Front		Back	
	Unrounded	rounded	Unrounded	rounded
High	i	y		u
High – mid	e			
Low – mid				ɔ
Low			a	

VOWEL QUADRILATERAL OF PAITE



2.11. PHONOTACTICS OF PAITE VOWELS

Sl.no.	Sounds	Initial	Medial	Final	#V	V#
1.	/i/	[íṇṇ]- house	[sik]- (to) pinch	[t͡sì]-salt		[leĩ]-(to) buy
2.	/i:/	[í:t]- (to) love	[sí:k]- metal/iron	[t͡sí:] – seed/generation		
2.	/y/	[yp]-rug sack	[huy?]- wind	[úy]-dog		
3.	/e/	[eŋ]- yellow	[zeŋ]- paralysed	[mité]- people/crowd	[éi]-we	
4.	/e:/	[é:k]- dung	[de:k]-(to) bargain	[ṇé:]-(to) eat	[ṇé:u]-small	
5.	/a/	[ánn]-	[lam]-	[ṇa]-you	[ṭai]-(to) be	

		food/rice	road/(to) build		satisfied	
6.	/a:/	[a:ŋ]- bosom	[va:k]- bright/light	[n̪a:]-pain/hurt	[t̪a:i]-(to) run	
7.	/ɔ/	[ɔp]- incubate	[kɔl]- loose		[lɔ:i]-buffalo	
8.	/ɔ:/	[ɔ:m]- chest	[bɔ:ŋ]-cow	[kɔŋkɔ:]-numb	[ŋɔu]- fair/white	
9.	/u/	[up^{h}ɔk]- frog	[d̪uŋ]- length		[gúy]- rope/creeper	
10.	/u:/	[ú:]- elderı/older	[vu:k]-snow	[t̪an̪ú:]- daughter	[t̪ú:i]-water	[zɔʔŋèu]- cat

Vowels are widely distributed across syllable as initial, medial, and final phonemes. Some vowels occur alternately following and preceding another vowel. The distributions of vowels are as follows:

a) All vowels in paite occupy word initial, medial, and final position.

b) A near close front unrounded vowel /i/ does not precede another vowel otherwise follows another vowel along with vowel /u/ a close back rounded vowel. For example:

[kéi]- I/me and [kɔù] – we

2.12. VOWEL ALLOPHONES OF PAITE

a) When a high front unrounded vowel /i/ precedes a low back unrounded vowel /a/ and a low unrounded vowel /ə/, /i/ is realized as /j/ a voiced palatal approximant.

For example: /i/ → [j] /____ [a]

[piá]-(to) give → [pjá] -(to) give

[kià]-(to) fall → [kjà] -(to) fall

[bial]-round → [bjal]-zero

[k^hiàl]-(to) sin→ [k^hjàl]-(to) sin

Phoneme /i/ and /j/ are in *complementary distribution* i.e. /j/ occurs only before low unrounded vowels [a] on the other hand, /i/ occurs elsewhere in the syllables of Paite.

For example:	/i/	/j/
	[kaì]- (to) pull	[kjà]-(to) fall
	[paí]- (to) conceive	[pjá]-(to) give

b) When a high back rounded vowel /u/ precedes back unrounded vowel /a/, /u/ is realized as /w/ a labial approximant.

For example: / u / → [w] /____ [a]

[puá]- (to) carry → [pwá]-(to) carry

[gua]- bamboo → [gwa]- bamboo

[kual]- circular → [kwal]- circular

[suáŋ]- stone → [s̀wáŋ]- stone

Phoneme /u/ and /w/ are in *complementary distribution* i.e. /u/ becomes /w/ only in the environment of low back unrounded vowel /a/ but /u/ occurs elsewhere in the syllables of Paite.

For example:	/u/	/w/
	[t̪ɔú]-(to) dig	[t̪wa]-now
	[gɔù]- property	[gwa]-bamboo
	[nɔú]-verdant	[nwàm]- pleasant
	[lɔú]-(to) pluck	[lwà]-(to) vomit

2.13. FREE VARIATION

"it is possible that two phones may appear in the same context without causing a change in meaning. In this case they are usually analyzed as free variants or optional variants," (Trubetzkoy 1939:46). Phonemes are thus in free variation if two different phonemes occur or occupy the same position in a syllable. In Paite the following phonemes are in free variation:

A high front unrounded vowel /i/ and a high front rounded vowel /y/, for example:

/i/	/y/
[kaì]- (to) pull	[uý]- dog
[n̪eì]- (to) have	[muy]-appetizing smell
[kai?] - pulled	[uy?]- bad smell
[nai?] - nearer	[nuy?] - laughed
[íṇṇ] - house	[yp] - rug sack
[ik] - hiccup	[ym] - cannot urinate

2.14. VOWEL FEATURES OF PAITE

Vowels are classified for the features such as [height], [backness], and [rounding]. For example -

a) [height] : the [height] feature specifying Paite vowels : [high] [low] and [tense]

[high] - [+high] vowels of Paite: [/i/, /y/,/u/]

[low] - [+low] vowels of Paite: [a]

[-high][-low] - [-high] [-low] vowels of paite : [/e/, /ɔ/]

b) [Backness]: the [back] feature specifying vowels of Paite : [front] and [back]

[front] - [+front] vowels of Paite: [/i/, /y/, /e/]

[back] - [+back] vowels of Paite: [/a/, /ɔ/ /u/]

c) [Rounding]: [round] is the feature specifying [rounding]

[+round] vowels of Paite - [/y/,/ɔ/, /u/]

TABLE 2.4. PAITE VOWEL FEATURES

	i	y	u	e	ɔ	a
[consonant]	-	-	-	-	-	-
[sonorant]	+	+	+	+	+	+
[continuant]	-	-	-	-	-	-
[back]	-	-	+	-	+	+
[high]	+	+	+	+	-	-
[low]	-	-	-	-	+	+
[round]	-	+	+	-	+	-

2.15. DIPHTHONG

"A pure vowel is one for which the organs of speech remain in a given position for an appreciab'e period of time. A diphthong is a vowel sound consisting of a deliberate, i.e. intentional glide, the organs of speech starting in the position of one vowel and immediately moving in the direction of another vowel." (John Mc Carthy 1998)

Diphthongs of Paite:

a. [ai] - [d̤aí]- shallow
b. [eu] -[keu]- dry
c. [ei] - [ḱeí] - I/me
d. [uy] - [suy] – (to) carve
e. [ɔu] - [kɔù] - we
f. [ɔi] - [kɔi] - (to) embrance
g. [au] - [laú] - fear/afraid

2.16. DESCRIPTIONS OF DIPHTHONGS OF PAITE

There are four (4) closing diphthong and three (3) close rounded diphthong in Paite.

a) [ai] represents a closing diphthong starting form a back low unrounded vowel /a/ and moving towards a high front unrounded vowel /i/.
b) [ei] represents a closing diphthong starting from a high mid unrounded vowel /e/ and moving towards a high front unrounded vowel /i/.
c) [ɔi] represents a closing diphthong starting from a low-mid rounded vowel and moving towards a high front unrounded vowel /i/.
d) [uy] represents a closing rounded diphthong starting from a high back rounded vowel /u/ and moving towards a high front rounded vowel /y/.

e) [ɔu] represents a closing rounded diphthong starting from a low-mid back rounded vowel /ɔ/ and moving towards a high back rounded vowel /u/.

f) [au] represents a closing rounded diphthong starting from a low back unrounded vowel /a/ and moving towards a high front back rounded vowel /u/.

g) [eu] represents a closing rounded diphthong starting from a high-mid unrounded vowel /e/ and moving towards a high back rounded vowel /u/.

DIPHTHONG INVENTORY OF PAITE:

Diphthongs	Closing	
	unrounded	rounded
/ai/	[paì]-(to) throw	
/ei/	[keí]- I/me	
/ɔi/	[kɔi]-(to) embrace	
/uy/		[ŋuý]- sad/moody
/ou/		[loú]- (to) pluck
/au/		[saú]-long
/eu/		[keú]- spoon

2.17. VOWEL CLUSTER

Vowel cluster is two or more vowels occurring next to each other in a single syllable with no target and no direction of a glide. Vowel clusters split up while diphthongs cannot.

In Paite vowel clusters such as [aa],[ay],[eɔ], occur and they split, for example

a) [aa] – [vaák] – crow * [vá] - bird [ak] – chicken

b) [yk] – [sayk] – hiccup * [sá] – meat [yk] – hiccup

c) [eɔ] – [zeɔl] – slow * [ze] – timing [ɔl] – slow

2.18. GENERALIZATION AND CONCLUSION OF THE SOUND SYSTEM OF PAITE:

1) Paite has twenty three (23) consonants exhibiting six (6) manner of articulation (stops, nasals, fricatives, affricates, approximants and lateral approximants) and four (4) places of articulation (labial, coronal, dorsal and laryngeal).

Six (6) oral vowels classified as pure vowels or monopthongs and gliding vowel or diphthong. The vowel features are [height] [backness] and [rounding]. Diphthongs are closing dipthongs and classified as rounded and unrounded closing diphthongs.

2) Both consonants and vowels have equal distribution across a syllable – initially, medially, and finally.

- Consonants like /j/ and /ʔ/ do not occupy onset of the syllable, likewise, voweis /i/ and /u/ do not occupy the onset of a syllable.
- Consonants like nasals /m n̪ ŋ/, voiceless stops /p t̪ k ʔ/ and lateral approximant /l/ occupy the coda of Paite syllables.
- Vowels like /i/ and /u/ do not precede another vowel.

3) Consonant clusters occupy word initial, medial, and final postion in Paite.

- Word initial cluster are specifically consonant + /j w/
- Word medial cluster are minimal in occurrence as major word medial clusters are duly polysyllable clusters. For example:

  [a:ksĩ] - [ks] – star

  [a:ksĩ] - [ks] – chicken dead i.e. [a:k]- chicken and [si]- dead

- Word final clusters are mainly [l?] and [n̰n̰]. For example:

  [l?] – [hil?]- (to) tell

  [n̰n̰] – [án̰n̰]- food

- Paite also allows vowel clusters such as [aa:] and [ai] to occur word medially. For example:

  [aa] – [vaá:k] – crow

  [ai] – [saik] – hiccup

4) Some consonant allophones are complementary in distribution. For example:

/p/ has an allophone /p/ and /p^h/, /p^h/ in word final position and /p/ elsewhere.

[ap] – Mould → [ap^h] – Mould

In addition, /p/ and /p^h/ are realization of distinct phonemes. For example:

[pa:k] – Flower

[p^ha:k] – Leprosy

In this manner, /p/ and /p^h/ are complementary in distribution as an allophone at the same time, contrastive, as they are the realization of different phoneme forming a minimal pair.

5) Paite has free variation with the following vowel phonemes /i/ and /y/. For example:

A high-unrounded front vowel /i/ and high rounded front vowel /y/

[íṇṇ] – house [yp] – rug sack

[lai?] – dug/pulled [huy?] – wind

6) Allophonic rules of phonemes of Paite

a) A voiceless velar aspirated stop /k^h/ is realized as a velar fricative /x/ before low unrounded back vowel /a/.

/k^h/ → [x] / [a]_____(c)(v)

[−cont] → [+cont]/[+cont] ____ (C)(V)

b) A voiceless plosives /p/, /t̪/, /k/ is realized as a voiceless aspirated stop /p^h/,/t^h/, /k^h/ word finally.

/p/,/t̪/, /k/ → [/p^h/, /t^h/, /k^h/ /_____##

[−spr gl] → [+spr gl] / _____ ##

c) A high front unrounded vowel /i/ is realized as a palatal approximant /j/ before a low unrounded vowel [a].

/i/ → [j] /____[a]

[-back] [+back] [+back]

d) A high-unrounded front vowel /u/ is realized as /w/, a labial – velar approximant before low back unrounded vowel /a/.

/u/ → [w] /_____[a]

[+round] [+round] [−round]

Under the segment inventory of Paite, in conclusion, Paite comprises of consonants and vowels with distinctive features and permissible co-occurrence along its distribution in a syllable. Allophones are prominent part of the phoneme inventory, context sensitive, complementary in distribution while contrastive in position, and in non- contrastive position phonemes are context free but occupy the same position in a syllable as free variants. As David Crystal (1985) says: "the phonemes of a language are abstractions, and the particular phonetic shape they take depends on many factors, especially their position in relation to other sounds in a sentence."

CHAPTER 3

TONE AND STRESS

3.1. TONE

"Tone can be defined as the phonologically contrastive use of pitch in the domain of the segment or syllable" (Yip, 2002). There are three underlying tones in Paite:

1) Mid tone (M)

For example: [pet̪] – (to) bite [bet̪] –(to) slap

[gu?] – bone [t̪u?] – (to) sow

2) Rising tone (L-H)

For example: [lá:i] – (to) pull [t̪á:i] – (to) scold

3) Falling tone (H-L)

For example: [lèi] – bridge [hèi] – axe/chopping wood

Table 3.1. Minimal pairs (contrastive pitch)

Sl.no.	Low high (L-H)	High low (H-L)
1.	[pái] – (to) conceive/pregnant	[pài] – (to) throw away/cancel
2.	[t̪áŋ] – obtain/procure	[t̪àŋ] – chicken pox
3.	[káŋ] – bake/fry	[kàŋ] – dry/run short
4.	[zá:] – hear	[zà:] – one hundred
5.	[léi] – (to) buy	[lèi] – bridge
6.	[ŋá:] – fish	[ŋà:] – (to) put down

7.	[mán] – be ready	[màn] – price
8.	[n̪oú] – verdant	[n̪où] – your/you
9.	[n̪wái] – below	[n̪wài] – lakhs

In Paite there are two mid tone (m) namely a category of word with glottal stop coda /ʔ/ and non-glottal coda word. These two mid tones differ in pitch height, as we will see below not in their mode of production.

Table 3.2. Minimal pairs (contrastive pitch)

Sl.no.	Glottal coda /ʔ/ (M)	No-glottal coda (M)
1.	[pilʔ] – (to) fracture	[pil] – clever
2.	[t̪ulʔ] – (to) feed	[t̪ul] – outdated
3.	[d̪elʔ] – (to) run after	[d̪el] – blind
4.	[kalʔ] – (to) drive	[kal] – (to) climb
5.	[gelʔ] – (to) write	[ge:l] – (to) think/estimate
6.	[melʔ] – (to) stare/ogle	[me:l] – appearance/face
7.	[haiʔ] – misremember	[ha:i] – mango
8.	[tʰalʔ] – (to) cough	[tʰa:l] – (to) fill water
9.	[kʰaʔ] – (to) let go	[kʰa] – spirit

As shown in table 3.1and table 3.2, three different types of pitch that overlaid the segments in Paite. This contrastive pitch conveys different semantic meaning. This pitch taking on a contrastive and semantic role marks the lexical representation of Paite language.

3.2. TONAL CATEGORY

Paite is both a register and contour tone language where, in a pure register tone language, tonal contrasts consist of different levels of steady pitch heights, that is, perceptually; such tones neither rise nor fall in their production. Contour tone languages consists of some tones which are not level in their production but rather rise, fall, or rise and fall in pitch. (Pike 1948:3)

The category of tones in Paité according to steady pitch and pitch contour levels as RT-Register tone and CT – Contour tone, as follows:

RT1 - MID TONE

RT 2 – MID TONE

CT1 – LOW HIGH TONE (RISING)

CT2 – HIGH LOW TONE (FALLING)

3.2. ACOUSTIC MEASUREMENT OF PAITE TONES

The acoustic analysis of tones in Paite is measurements of pitch values at the point of initiation (of vowels), the point of termination for a tone bearing unit and the pitch mean slope with the help of speech analysis tool called PRAAT. For each category of tone, a number of fifteen words analyzed.

Table 3.3

Register Tone 1 (M)			
Word	Initial (F0)	Final (F0)	Average mean slope (F0)
[kʰāː] – human spirit/soul	188	174.5	177.5
[māṇ] – sticky/trapped	182.7	166.5	178.1
[sāŋ] – siblings	190.9	165.9	174.7
[pāːk] – flower	167.5	163.2	161.1
[ṭūm] – sinking	181	172	170
[kāl] – climb/pace	180.9	164.1	166.9
[pāk] – pungent	186.2	172.3	180.5
[ṭēːŋ] –(to) wear/woven	176.4	171.8	169.3
[ḍōːṇ] – (to) drink	175.2	175.7	170
[ŋā] – five	167.6	152.9	159.3
[bīː] – straw/hay	177.4	171.4	170.6
[ṭāi] - satisfy	174.1	162.7	163.5
[ṭōːm] – small or few	176.4	151.9	165.9
[lēi] - tongue	172.7	167.3	170
[mūː] – eagle	183	163.9	174.1

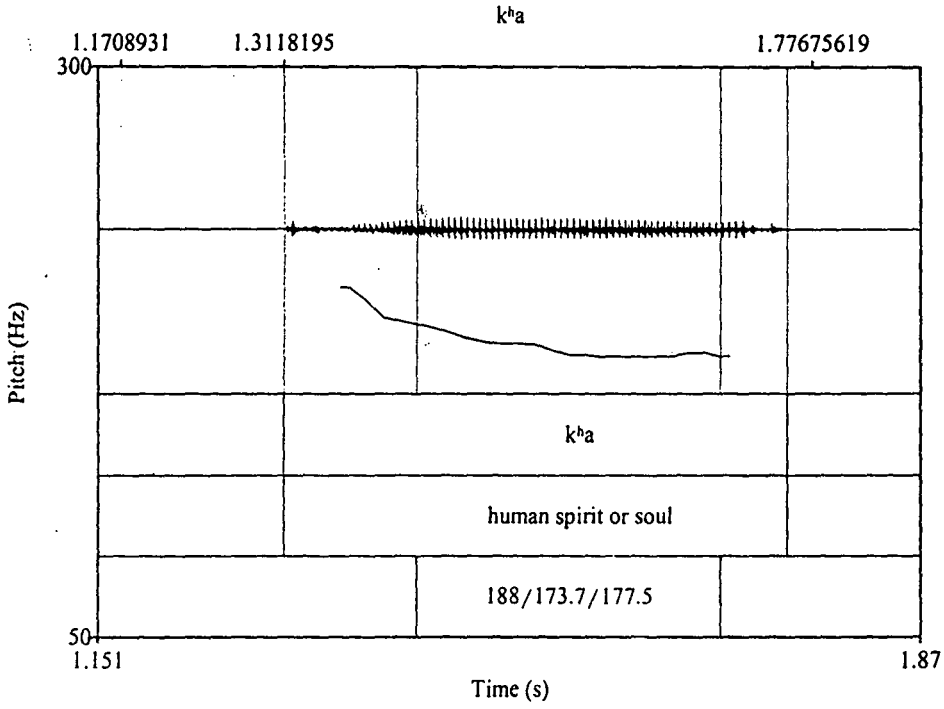


Fig. wave form and pitch contour for the word 'kʰa' – human spirit or soul.

Table 3.4

Register Tone 2 (M)			
Word	Initial (F0)	Final (F0)	Average Mean slope (F0)
[lē?] – and/give back	197.1	191	195.9
[mēl?] – (to) stare/ogle	214.7	196.3	208.2
[n̪ā?] – leaf	212	199	206.3
[kā?] – cry after	200.8	185.8	195.6
[gɔ̄?] – (to) slay	191.3	184.7	192.7
[kāl?] – to lock	196	182.1	193.9
[dāl?] – scattered	213.3	198.3	206
[hāl?] – be awake	209.1	188.9	195.4
[bēl?] – (to) paste/ stick	209.9	181.4	200
[n̪āl?] – nice and attractive	210.5	201.5	206.4
[zāl?] – (to) spread	215.6	194.9	202.5
[vāl?] – (to) swallow	212.4	205.1	207.2
[t^hā?] – (to) kill/slay	229.4	199.4	214.2
[k^hū?] – (to) cover	211.8	194.3	207
[k^hā?] – undo/release	207	180.1	194.8

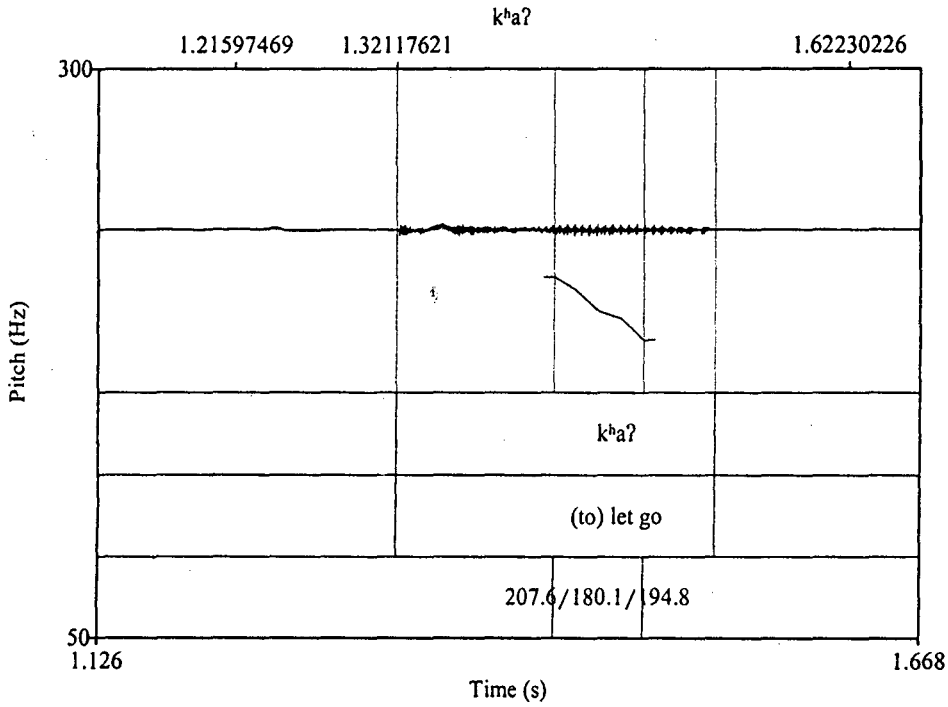


Fig. wave form and pitch contour for the word 'kʰaʔ' – (to) let go

Table 3.5.

Contour Tone 1 (L-H)			
Words	Initial (F0)	Final (F0)	Average Mean slope (F0)
[kʰă:] – bitter	178	220.4	188.4
[ŋă:] – fish	179.7	220.7	190.02
[mŭ:]- seed/pip	188.4	284.6	212.83
[să:] – meat/flesh	206	254.2	218.8
[keĭ] – i/me	199.9	258.2	213.64
[taĭ] – (to) scold	192.8	259.9	210.16
[nɔŭ] – fresh/verdant	200.1	294.2	229.7
[t̪ĕ:ŋ] – live/dwell	213	279.4	228.89
[t͡sĭ:l] – miser/thrifty	217.8	278.6	238.3
[bă:ŋ] – wall/partition	204	281.4	228.55
[d̪ɔ̆:n̪] – (to) welcome	178	244.1	198.45
[t͡sĭ:l] – miser or thrifty	217.8	178.6	238.3
[kăl] – kidney	193.9	252.1	213
[kăŋ] – dry/run short	191.2	264.6	209.33
[kʰĕ:l] – hip/thigh	210.1	282	229.33

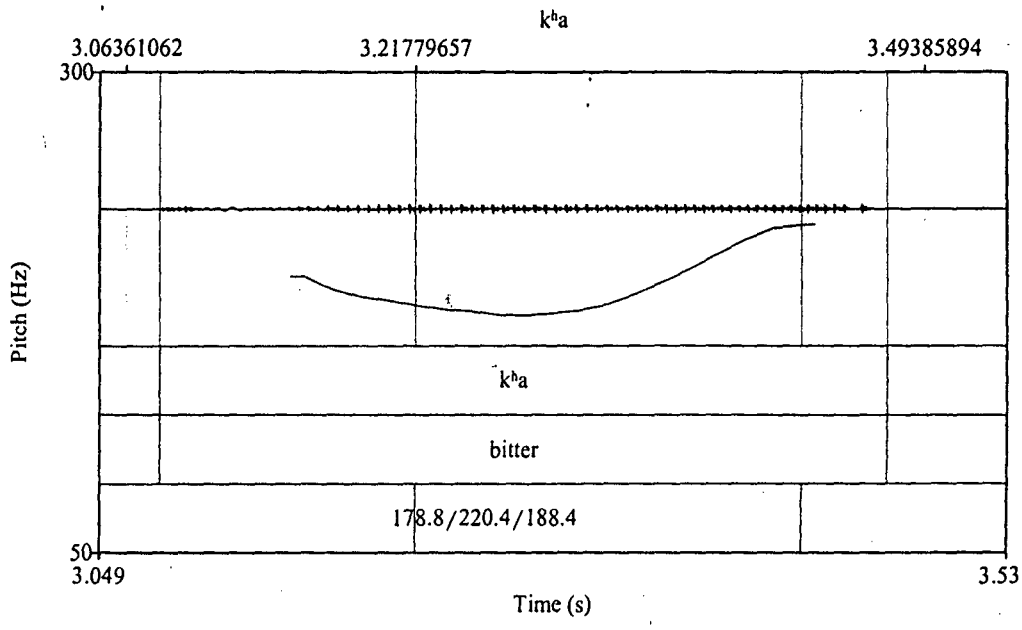


Fig. wave form and pitch contour for the word 'kʰa' – bitter

Table 3.6.

Contour Tone 2 (H-L)			
Words	Initial (F0)	Final (F0)	Average Mean slope (F0)
[kʰâ] – moon/month	180.	138.7	156.4
[ŋâ:] – (to) put down	180.9	142.9	161.6
[mû] – (to) see/find/achieve	185.6	148.7	168.04
[sâ] – (to) sing	180.8	141.8	162.48
[n̥ɔû] – you/your	194.9	148.6	173
[ke:î] – (to) bite	197.3	135.3	164.52
[pa:î] – (to) throw away or dispose	162.3	141.7	151.53
[pʰeî] – thigh	195.9	141.7	169.7
[t̥ɔ̂:p] – lastly/finally	189	157	173.4
[t̥â:ŋ] – move/mobile	176	139	159.55
[d̥ôn̥] – tip/apex/germinate	186	153.6	168.9
[nâ:k̚] - nose	176.2	151.8	162.5
[mân̥] – rate/price	188.5	154.2	175.9
[sâŋ] – bread	195.1	140.7	167.6
[sî:n̥] – (to) cover	194.3	150	172.8

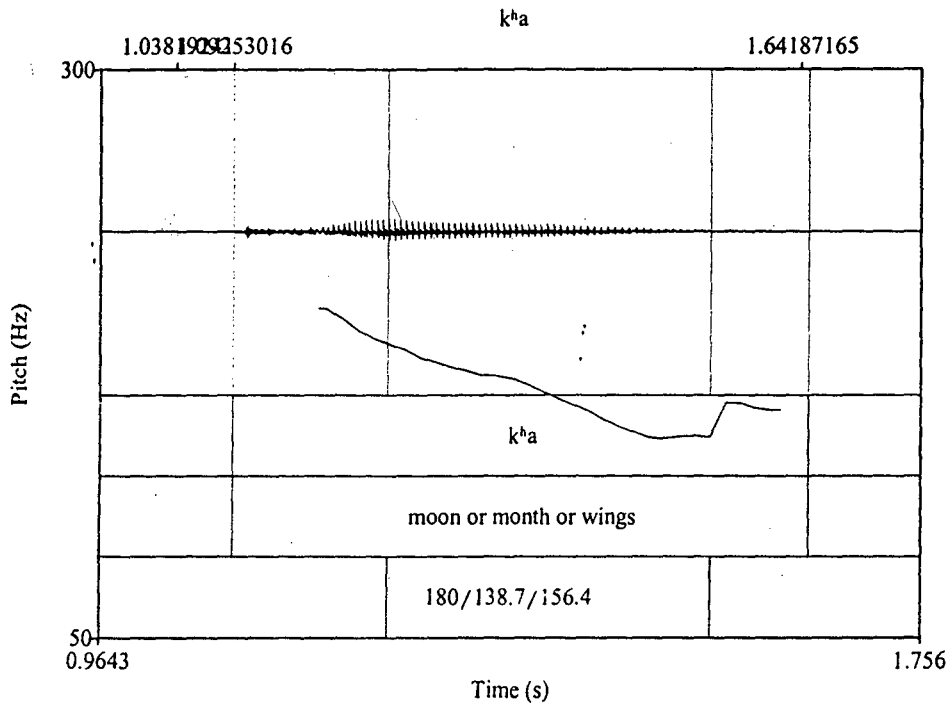


Fig. wave form and pitch contour for the word 'kʰa' – moon/month/wings

The calculation of the average fundamental frequency (F0) of each tone slope of the three Paite tone, average fundamental frequency (F0) values at initial and final position and average F0 mean slope for each four tone as shown below –

TABLE 3.7. AVERAGE F0 AND AVERAGE MEAN SLOPE (F0)) VALUES IN HZ OF PAITE TONES

Tone	Fundamental frequency (F0)		Mean Slope
	Initial	Final	
RT1 (M)	178.3	166.83	170.1
RT2 (M)	208.8	192.2	201.87
CT1 (LH)	197.64	262.5	228.9
CT2 (HL)	184.6	142.89	165.5

3.3. TONE ALTERNATION IN PAITE

The tonal alternation process follows a phenomenon of down stepping and up stepping according to its preceding and following tone.

a) Down stepping – Down stepping occur between sequences of the same phonemic tone.

Examples down stepping in Paite as below –

[L-H] → [M] / _____ [L-H]

L-H	L-H	[M L-H]
[ŋa] – fish	[n̥ɔu] – fresh/young	[ŋaˈn̥ɔu] – small fish
[mi] – people	[d̥ɔ:n̥] – (to) welcome/greet	[miˈd̥ɔ:n̥] – (to) welcome people
[t̥aŋ] – obtain	[zɔu] – won	[t̥aŋˈzɔu] – succeed/obtain

b) Upstepping in paite as below –

[H-L] → [M] /_____ [H-L].

H-L	H-L	[M H-L]
[t͡si] – salt	[kʰal] – solid	[t͡siˈkʰal] – salt cubes
[pai] – (to) throw	[kʰja] – fall	[paiˈkʰja] – throw away
[kaŋ] – bake/fry	[kaŋ] – burning	[kaŋˈkaŋ] – burnt

Down stepping

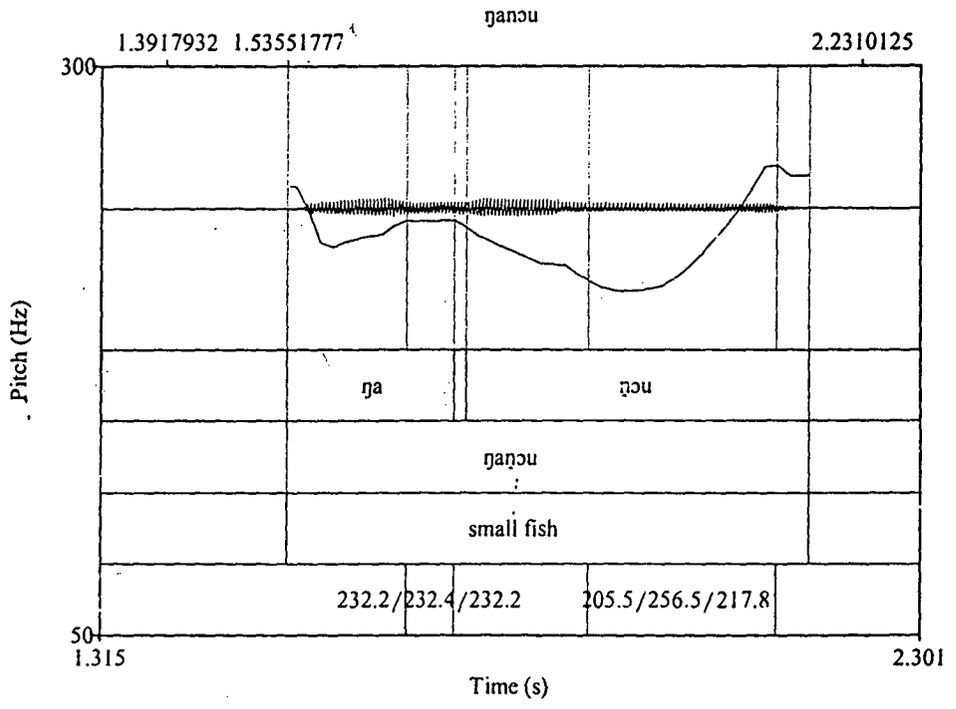


Fig. wave form and pitch contour for the word 'ŋaŋ̣ɔu' – small fish

Upstepping

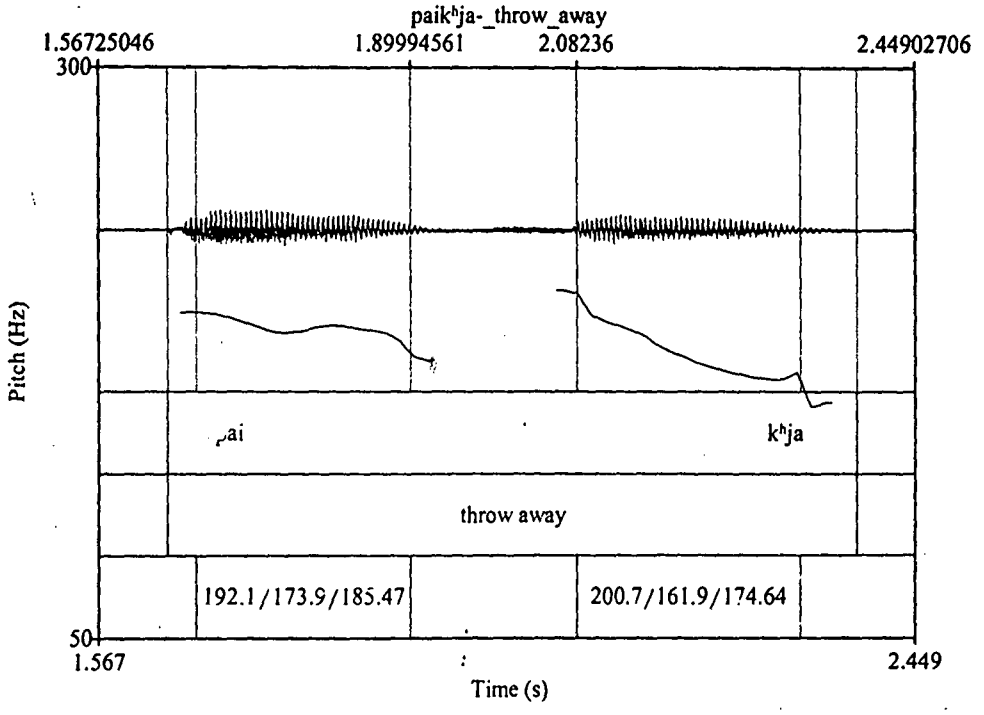


Fig. wave form and pitch contour for the word 'paikʰja' – (to) throw away'

3.5. STRESS

Pitch is the most important cue of tone just as pitch is the most important phonetic signal of stress. Therefore, placing a stress on a given syllable modifies the segments over which it has domain, this phenomena describes the stress pattern of Paite in general.

In Paite primary stress falls on the ultimate or final syllable and secondary stress falls on the first syllable. For example:

	/ stress /	/ tone /
• Disyllables :	[ˌmi:kˈsi]	[mi:k.sì] – ant
	[ˌsaˈva:]	[sa.vá:] – bird

• Pollysyllables :

[ˌd̥ɔlsjalˈne:k]	[d̥ɔl.sjál.né:k] – arum
[ˌpwan̥akˈn̥wai]	[pwan̥.á:k.n̥wái] – blouse
[ˌtʰeiga?suŋˈmu]	[tʰei.ga?.suŋ.mú:] – nutshell
[ˌan̥n̥te?lɔuˈhiŋ]	[án̥n̥.t̥e?.lɔu.hiŋ] – green vegetables
[ˌsiŋle?lɔusuyˈn̥a]	[síŋ.le?.lɔu.su:y.n̥à:] – botanical

Stress placement is non-phonemic in Paite since stress is marked on the most prominent part of the syllable, and stress is predictable because of its correlation to tone as shown in the above examples. A stress syllable in Paite is lexical tone while the prominence of lexical tone word finally in Paite conveys primary stress. As far as this analysis is concern, tone is phonemic due to pitch variation in Paite but stress is non-phonemic but only conveys the category of tones.

3.6. SUMMARY

Paite has lexical tones, each syllable bears tone in Paite, three underlying tones such as mid tone (M), of which mid(M) is of two types one with glottal coda mid tones and without glottal coda mid tone categorized as register tones and falling (H-L) and rising tones(L-H) which are contour tones.

The tonemes of Paite are phonemic and undergo partial assimilation processes, and this tone - tone interaction results in the phenomena of down stepping and up stepping which shows the dynamicity of tones in Paite.

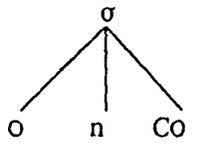
Stress in Paite is Primary in syllable final position and secondary in word initial position.

Stress in Paite determines the category of tone but non- phonemic unlike tone that is phonemic.

CHAPTER 4

SYLLABLE STRUCTURE

Syllable is a unit of pronunciation typically larger than a single sound and smaller than a word (David Crystal 1985). A syllable consists of an onset (O), a nucleus (N), and a coda (Co). Example of Paite syllable:



[t e m] - knife

4.1. SYLLABLE STRUCTURE

Paite has monosyllable open and closed syllables. The different types of open and close syllable as below –

Open syllable:

1) V – for example:

[a] – nominal/pronoun [ɯ] – elder brother/sister

2) CV – for example:

[lá] – (to) take/song [n̥ú] – mother

Close syllable:

1) VC – for example:

[a?] – at [én̥] – (to) look/watch

2) CVC – for example:

[va:k] – (to) feed [vuṭ] – ashes

3) CCV – for example:

[ɣwa] – bamboo [kwà] – who

4) CVCC – for example:

[gel?] – (to) write [bel?] – (to) paste

5) CCVC – for example:

[hjam] – sharp [ṭwám] – (to) cover

Table1. SYLLABLE TYPES FOR PAITE

Example	Syllable division	Paite representation
[u]	V	elder brother or sister
[ṇú]	CV	mother
[a?]	VC	at
[áṇṇ]	VCC	food/rice
[va:k]	CVC	(to) feed/bright
[gwa]	CCV	bamboo
[gel?]	CVCC	(to) write
[hjam]	CCVC	sharp

Equally, syllable is, "the phonological unit which organizes segmental melodies in terms of sonority" (Blevins 1995:207). The canonical syllable structure of Paite –

$$(C)\,(G)\,V\,(C)\begin{Bmatrix}(L)(?)\\(N)(N)\end{Bmatrix}$$

Where C = any consonant

G = glide

V = vowel

L = lateral

N = dental nasal

[?] = glottal stop

4.2. SYLLABLE CONSTRAINTS:

Paite allows at most two consonant clusters in the onset and at most two in the coda and medial clusters are rare but few exceptional occurrences as listed in the table below.

Table 2. ONSET STRUCTURE IN PAITE SYLLABLES

class	Cluster of onset consonants	Word representation
Consonant + glide	lw	[lwaŋ] – flowing
	pj	[pjaŋ] – born

Table 4. PERMITTED MEDIAL CONSONANT CLUSTERS IN PAITE

Class	Cluster of medial consonants	Word representation
Alveolar fricative + voiceless velar plosive	sk	[iskúṭ] - squash
Dental nasal + dental stop	nṭ	[maṇṭa] - brinjal
Voiceless velar plosive + alveolar fricative	ks	[a:ksí] - star

Table 3. CODA STRUCTURE PAITE SYLLABLES

class	Cluster of coda consonants	Word representation
Lateral + glottal stop	l?	[gel?] - (to) write
Dental nasal	nn	[íṇṇ] - house/home

4.3. SYLLABIFICATION

Syllabification refers to the grouping of segmental sounds into syllables and their allocation to the constituents of the syllable, i.e. onset, nucleus, and coda, following a set of universal and language-specific principles. Paite follows the following as its syllabification principles:

- principle of maximal open syllabicity (MOS) where "a syllable boundary is inserted after every vowel (or diphthong) of a word" (Hyman 1975:189)
- maximal onset (MOP) that is "a consonant which may in principle occupy rhyme or onset position will occupy onset position" (Selkirk 1982)

For instance, in the word -

a) [abulabá:l]- root
b) [baŋt͡siklaipeu?in]- whenever
c) [keiá] – mine
d) [meiɔi] – (to) sit by fire

In (a) and (b) the entire consonant goes to the onset of the syllable so the syllable boundary becomes

*[a.búl.a.bál] – root
*[baŋ.t͡sik.lai.peu?.in] – whenever

So is the vowel (or diphthong) in (c) and (d) the entire word are opened by boundary as

*[kei.á] – mine
*[mei.ɔi] – (to) sit by fire

For words to be a combination of utterances in Paite as syllables are "necessary units in the organization and production of utterances" (Ladefoged, 1982), the syllabification is of the following:

- Disyllabic
- Tri-syllabic
- Quadra-syllabic
- Pent-syllabic
- Hex-syllabic
- Tetra-syllabic

Table 5. DISYLLABIC WORDS IN PAITE

Simple words	Complex + compound words	Syllable division	Word representation
[a]-pronoun	[a.ṇú]	V.CV	his/her mother
	[ei.á]	V.V	ours
	[kei.á]	CV.V	mine
[ɔi]-basked/warm up	[ɔi.lɔ́u]	V.CV	disbelieve
	[méi.ɔi]	CV.V	warm up (near fire)
	[ka.ɔi]	CV.V	I believe
[lu]-head	[lu.sú]	CV.CV	dozing
	[lu.gu?]	CV.CVC	skull

	[lu.léi]	CV.CV	scalp
[a:k]-chicken/hen	[a:k.sí]	VC.CV	dead chicken
	[mí:k.si]	CVC.CV	ant
	[a:k.nɔú]	CVC.CV	chicken
[áɲɲ]-food/rice	[áɲɲ.vu:y]	VCC.CV	flour
	[áɲɲ.ŋjam]	VCC.CCVC	rice grains
	[gaɲ.áɲɲ]	CVC.VCC	fodder
[máɲ]-ready	[maɲ.ṭá]	CVC.CV	ready
	[maɲ.ṭám]	CVC.CVC	expensive
	[maɲ.tep]	CVC.CVC	grass
[kwa]-who	[kwà.ṭɔ?]	CCV.CVC	with whom
	[kwà.ṭá:]	CCV.CV	whose child
	[gu:l.kwà]	CVC.CCV	snake hole
[t^hàu]-oil/fat/gun	[t^hàu.ká:p]	CV.CVC	gunfire
	[vɔk.t^hàu]	CVC.CV	pork fats
	[t^hàu.ṭú:y]	CV.CV	petrol/kerosene
[k^hwai]-bee	[k^hwai.bú]	CCV.CV	honeycomb
	[k^hwai.ɲɔú]	CCV.CV	pupa
	[k^hwai.eŋ]	CCV.VC	yellow bee
[gɔl?]- cramps	[ki.gɔl?]	CV.CVCC	(to)involve oneself
	[sa.gɔl?]	CV.CVCC	muscle cramps

[n̪ai?]-(to) approach	[ki.n̪ai?] [n̪ai?.n̪à]	CV.CVC CVC.CV	adjacent proximity
[hjam] - sharp	[kwa.hjám] [t̪em.hjam]	CCV.CCVC CVC.CCVC	somebody sharpknife

Table 6. TRI-SYLLABIC WORDS IN PAITE

Simple words	Complex + compound words	Syllable Division	Word representation
[a]-pronoun	[a.zjak.t͡su(?)] [a.v̪ek.in]	V.CCVC.CV(C) V.CVC.VC	because all
[ɔi] – basked/warm up/believe	[tʰu.ɔi.lɔu] [mei.ɔi.lai]	CV.V.CV CV.V.CV	disobedient still warming up
[kʰá]-bitter/accidental	[tʰei.kʰa.te?] [ki.ke:i.kʰá]	CV.CV.CVC CV.CV.CV	plum leaf (to) bite oneself accidentally
[éṇ]-(to) look/watch	[eṇ.kɔ́l.t̪ú] [eṇ.kel.kùl]	VC.CVC.CV VC.CVC.CVC	custodian/guardian (to)stare
[áṇṇ]-food/rice	[áṇṇ.su.kʰɔ́:l] [áṇṇ.gɔ́i.n̪à]	VCC.CV.CVC VCC.CV.CV	mill mill stone
[síŋ]-wood	[siŋ.tʰei.min] [siŋ.taŋ.mai]	CVC.CV.CVC CVC.CVC.CV	mulberry papaya

[t̪wa] - now	[kʰwa.t̪wa.mjál]	CCV.CCV.CCVC	nightfall
	[t̪wa.pè:l.pàn̪]	CCV.CVC.CVC	just crossed/overcome
[vai]-chaff/non-tribals	[vai.mi:m.sám]	CV.CVC.CVC	corn silk
	[vai.an̪n̪.tʰú:k]	CV.VCC.CVC	flax
[hwái]-that/there	[hwái.t͡sjáŋ.in]	CCV.CCVC.VC	there and then
	[ki?.hwai.é:]	CVC.CCV.V	very filthy
[kɔl?]- bald/encircled	[mu.lu.kɔl?]	CV.CV.CVCC	vulture
	[kɔl?.kʰum.n̪à]	CVCC.CVC.CV	bracket
[d̪ai?]-silent/enough	[dai?.sak.n̪à]	CVC.CVC.CV	silencer
	[ki.dai?.lɔù]	CV.CVC.CV	insufficient
[pwán̪]-clothes	[pwán̪.á:k.nwái]	CCVC.VC.CCV	blouse/lingerie
	[pwán̪.kʰu:y.t̪ú]	CCVC.CV.CV	tailor

Table 7. QUADRA-SYLLABIC WORDS IN PAITE

Simple words	Complex + compound words	Syllable division	Word representation
[a]-pronoun	[a.búl.a.bá:l]	V.CVC.V.CVC	root/core
[ái]-crab	[aí.sa.ké:ŋ.pí]	V.CV.CVC.CV	chelipeds (of crab)
[n̪ú]- feminine/mother	[n̪u.mei.pi:.t͡sìŋ]	CV.CV.CV.CVC	women

[éɳ]-(to) look/watch	[eɳ.tɔ́ɳ.a.gel?]	VC.CVC.V.CVCC	copy/transcribe
[áɳɳ]-food/rice	[áɳɳ.te?.lɔu.hiŋ]	VCC.CVC.CVV.CVC	green vegetables
[bàŋ]-what	[baŋ.t͡sik.t͡sjáŋ.iɳ]	CVC.CVC.CCVC.VC	when
[kwà]-who/hole	[kwà.ma?.t^{h}ei?.lɔu?]	CCV.CVC.CVC.CVC	secretly/stealthily
[lɔú]-farm/plantation area	[lɔú.ɳa.sè:m.mí]	CV.CV.CVC.CV	farmer
[hwái]- that/there	[hwái.lai.pék.a]	CCV.CV.CVC.V	then/back then
[gɔl?]-cramps/involve	[ki.gɔl?.k^{h}á:k.ɳà]	CV.CVCC.CVC.CV	involvement
[huy?]-wind/air	[huy?.nuŋ.hjáu.hjáu]	CVC.CVC.CCV.CCV	breeze
[t^{h}wàk] - (to) tolerate	[t^{h}wàk.zɔ?.lɔu?.ɳà]	CCVC.CVC.CVC.CV	intolerance

Table 8. PENT-SYLLABIC WORDS IN PAITE

Simple words	Complex + compound words	Syllable DIVISION	Word representation
[aɻ-pronoun	[a.hɔ́n.a.sè:m.k^{h}ɔ:m]	V.CVC.V.CVC.CVC	Collectively/team work
[úy]-dog	[uy.hái.kei?.ɳat.ɳà]	VV.CV.CVC.CVC.CV	rabies
[t^{h}ú]-word/matter	[ki.t^{h}u.pí.sak.ɳà]	CV.CV.CV.CVC.CV	pricey
[ú:t] - want	[ù:t.t^{h}u.a.ki.pjá]	VC.CV.V.CV.CCV	voluntary
[áɳɳ]-	[áɳɳ.kam.bul.bá:l.ɳèi]	VCC.CVC.CVC.CVC.CV	turnip

food/rice			
[bàŋ]-what	[baŋ.t͡sik.lai.peu?.iɲ]	CVC.CVC.CV.CVC.VC	whenever
[kwà]-who/hole	[kwà.t^{h}ei?.lɔu?.pí:.k^{h}aʈ]	CCV.CVC.CVC.CV.CVC	unfamiliar
[lù:y]-river	[lù:ykig`ɔ:mk$^{h}$`ɔ:mɲà]	CVV.CV.CVC.CVC.CV	confluence (river)
[sjá]-bad	[sjá.le?.p^{h}a.t^{h}ei?.ɲa]	CCV.CVC.CV.CVVC.CV	conscience
[ɖei?]-like/want	[ɖei?.sak.twam.ɲei.l`ɔu]	CVC.CVC.CCVC.CV.CV	unbiased
[ʈwa?]-(to) shift/met	[ʈwa?.sjá.le?.ljam.ɲà]	CVC.CCV.CVC.CCVC.CV	casualty

Table 9. HEXA-SYLLABIC WORDS OF PAITE

Simple words	Complex + compound words	Syllable DIVISION	Word representation
[ú:ʈ] - want	[ú:ʈ.le?.ɖa?.a.ɔɪn.ɲà]	VC.CVC.CVC.V.VC.CV	carefree
[t^{h}á] – strength/power	[ki.t^{h}a.ɲɔp.swa?.sak.ɲà]	CV.CV.CVC.CCVC.CVC.CV	determination
[su:y] – (to) study/research	[sù:y.t^{h}ei?.lɔu?.a.huɲ.sɔ́:ʈ]	CV.CVC.CVC.V.CVC.CVC	eon/eternity

Table 10. TETRA-SYLLABIC WORDS IN PAITE

Simple words	Complex + compound words	Syllable DIVISION	Word representation
[ú:t̪] - want	[ù:t̪.dà:n̪.dà:n̪.a.vái.hɔ́:m.n̪à]	VC.CVC.CVC.V.CV.CVC.CV	dictatorship
[vwa?]- rain	[vwa?.pí.le?.huy?.pí.ki.t^{h}wa?]	CCVC.CV.CVC.CVC.CV.CV.CCVC	hailstorm
[lak]- among	[p^{h}ɔ̀:l.pí.lak.a.pan̪.h^{h}ɔ̀:l.pɔ́:t̪]	CVC.CV.CVC.V.CVC.CVC.CVC	ostracize

4.4. SUMMARY

Under the syllable inventory, syllables in Paite are monosyllable. Syllables closed in structure. Correlating to constraints on the occurrence of consonants in a word, Paite follows the principle of maximal open syllabicity (MOS) and principle of maximal onset (MOP) as its syllabification rule. The major syllabifications vary from disyllabic to tetra-syllabic structure.

CHAPTER 5

CONCLUSION

Paite sound system of consonants and vowel comprises of twenty- three (23) consonantal sounds, six (6) oral, and seven (7) gliding vowels. Consonant sounds consists of unaspirated stops /p b t̪ d̪ k g ʔ/, aspirated stop /pʰ tʰ kʰ/, nasals /m n̪ ŋ/, fricatives /f v s z h/, affricate /t͡s/, approximants /ɹ j w/ and lateral approximant /l/. Stop consonant /p t k ʔ/, nasal /m n̪ ŋ/ and lateral approximant /l/ occupy coda of a syllable in Paite. Otherwise all consonant except approximant /j w ʔ/ occupy initial place of a syllable in Paite. Any consonant plus approximants /j w/ form word initial cluster in Paite except for /t̪j/, /t͡sw/.Consonant /ɹ/ and /f/ a post alveolar approximant and labio-dental fricative in Paite are non-cluster forming consonants word initially, medially and finally in Paite. Word final consonant cluster is [lʔ] and [n̪n̪] a cluster of lateral and glottal stop and dental nasal. Word medial cluster are [ks], [n̪t], [kp], [sk] and exceptionally for the word alone where it occurs because clusters in word medial position in large amount of words in Paite are either disyllabic or polysyllabic words. In Paite aspirated voiceless stop /kʰ/ has an allophone /x/a voiceless velar fricative in the environment of a low vowel /a/. In another case voiceless aspirated stops /pʰ t̪ʰ kʰ/ is an allophone of voiceless stops /p t̪ k/ in the environment of word final position. /pʰ tʰ kʰ/ and /p t̪ k/ as allophone are complementary in distribution.

Vowels of Paite are front and back such as /i y e/ and /u ɔ a/ specified for mainly [roundness] and [height]. Vowel lengths are one of the defining features of vowels in Paite as vowel length is phonemic. Distribution of vowels is word initial, medial, and final in Paite. A near close

front rounded vowel /i/ and a near close back rounded vowel /u/ in Paite do not precede another vowel but follows another vowel. In Paite vowels /i u/ and approximant /j w/ are in complementary distribution. Approximant /j w/ is an allophone of vowel /i u/ in the environment of low vowel /a/. Vowel /i/ and /y/ are non-contrastive in distribution and in free variation in Paite. Gliding vowels (diphthong) in Paite are closing and rounding features. Diphthongs like non-gliding vowel sequence known as two-vowel sequence analyzable as disyllable occur in Paite. Since vowels (monophthong) are oral vowels, in the environment of nasal consonants /m n̪ ŋ/, these vowels nasalized. The segments phonemic processes involve insertion and deletion as far as vowels are concern and partial and total assimilation in consonants. Tone and stress are the supra segmental features of Paite. There are three underlying tones in Paite with two mid (M) and falling (H-L) and rising (L-H) register and contour tones. The mid (M) tones of Paite have a segmental construct of glottal coda /ʔ/ class and non-glottal coda class. The main distinction is that of pitch height. The tonal interactions in Paite is upstepping and downstepping before or after adjacent like tones. Since every syllable have tones in Paite stress is equally defined in terms of pitch and stress and tone in fact share a relation at this juncture in Paite. Primary stress falls on word final syllable where pitch is prominent and secondary stress on word initial syllable. In this manner stress also categorize the tone types. Though stress and tone in Paite seems related, tone is but phonemic while stress is non-phonemic in the language. Paite mostly characterized its syllable as closed monosyllable. Therefore every syllable in Paite should either be closed with a consonant and if opens with a vowel or diphthong but complex clusters should be minimal in the coda position i.e. maximal onset principle (MOP) and maximal open syllabicity (MOS). This is the syllabification rule of Paite.

In conclusion, Paite has a rich sound structure by far both of complex and simple form. The rich form includes consonant distribution, its tonal system, and phonemic states of its vowel due to length, syllabification of words. This study is not enough to proclaim much about the sound system and interaction of sounds in the language although attempts made. As mentioned in the first chapter, the main objective is to give a prospect of phonology, a sketch of what are the speech sounds of Paite that constitute a phonological word. Like, in this study, one cannot explain the role of vowel length and its significance apart from being phonemic. What are the tone bearing units in Paite?. However, the word phonology of Paite constitute speech sounds (consonants and vowels) at the segmental, tone and stress occupy the supra segmental apart from the syllable structure. Therefore, the syllable or words of Paite represent segments of vowels and consonants overlaid by stress and tone.

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APPENDIX – I

Basic word lists of Paite

NOUN CLASS

1	Animal	[gam.sá]
2	Ashes	[vuɻ]
3	Air	[huy?]
4	Ant	[mi:k.sì]
5	Aroma	[gim.nam.ʈu:y]
6	Agriculture	[lɔu.bɔ:l.nà]
7	Arum	[ɖɔl.sjal.né:k]
8	Awn	[abi]/[bu?bí]
9	Awake	[hal?]/[pʰɔ́:k]
10	Abscess	[tsi.ke?]/[dul?]
11	Aubergine	[man.ʈa hiŋ]
12	Amaranth	[zɔu.za:m pa:k]
13	Agave	[sjal.ɖai]
14	Back	[nuŋ]
15	Belly	[gil]
16	Bird	[sa.vá]
17	Black	[vɔm]
18	Blood	[si.sàn]
19	Bone	[gu?]
20	Breast	[nɔí]
21	Banana	[na?.ʈaŋ]
22	Bangles	[ʈau]
23	Blouse	[pwan.a:k nwái]
24	Book	[laibú:]

25	Brother(elder)	[u:pá]
26	Brother's wife	[u:nú]
27	Bald	[lu.gjau]
28	Blind	[mit̪.d̪el]
29	Bull	[sjal]
30	Butterfly	[paŋ.pa.le:k]
31	Bud	[mú:m]
32	Bark(of a tree)	[siŋ.hɔ:ŋ]
33	Branch(of a tree)	[ka.hjaŋ]
34	Bough	[siŋ.hjaŋ]/[siŋ.ka.pí]
35	Bush	[siŋ.bú:k]
36	Beetle	[ku.va.gaʔ]
37	Banana peel	[naʔ.taŋ.hɔ:ŋ]
38	Bamboo	[gwa]
39	Bamboo shoot	[gɔt̪.wài]
40	Bamboo sprout	[gɔ.t̪wai.sél]
41	Brinjal	[man̪ta]
42	Bran	[vai]
43	Basil	[le:n.mùy]
44	Beverages	[tʰei.t̪úy]
45	Banyan	[buŋ]
46	Blight	[luŋ.vei]
47	Botanical	[siŋ.leʔ.lɔu.suy.nà]
48	Body	[pum.pí]/[sa.púm]
49	Bosom	[a:ŋ]
50	Brain	[kʰwák]
51	Cloud	[mei.pí]
52	Child	[n̪au.páŋ]
53	Cat	[zɔʔ.ŋèu]/[mé:ŋ]
54	Chilli	[mal.ta]

55	Comb	[sám.si?]
56	Copper	[ɖa:r.eŋ]
57	Cow	[bɔ:ŋ]
58	Crow	[va:k]
59	Corpse	[si.lwaŋ]
60	Creeper	[lɔu.pa.za:m]
61	Chesnut	[se.ga?]
62	Cabbage	[zi:k.lú:m]
63	Cauliflower	[pa:k.bɔ:k]
64	Cucumber	[ʈaŋ.mai]
65	Chilli pepper	[mal.ʈa vuy]
66	Chaff	[vai]
67	Corn husk	[vai.mi:m.lú:m]
68	Corn silk	[vai.mi:m.sám]
69	Corn kernel	[vai.mi:m.lai.mú]
70	Cob	[vai.mi:m.bul]
71	Cooked rice	[bu?.min.sa]
72	Corriander leaf	[marwai]
73	Curcuma	[ai.pa:k]
74	Curry	[me?]
75	Cane-rope	[tsi:ŋ.gúy]
76	Cane-work	[tsi:ŋ.swák]
77	Creeper	[a.za:m]/[gúy]
78	Cactus	[ka:ŋ.ɖam]
79	Cultivator	[kʰɔu.ʈú]
80	Cubit	[ʈ̂ɔŋ]
81	Cord	[la:m]
82	Day	[su:n]
83	Dog	[úy]
84	Dust	[lei.vúy.kʰú]

85	Dirt	[nì:n.neŋ]
86	Dug	[kʰwák]
87	Door	[kɔŋ.kʰá:k]
88	Drizzle	[pʰi:n]
89	Danger	[lau?.hwai]
90	Deaf	[bil.ŋɔŋ]/[beŋ.ŋɔŋ]
91	Donkey	[sa.beŋ.ʈuŋ]
92	Draught	[kʰɔ.keu]
93	Dreg/dregs	[ʈɔ.ɖaʈ]
94	Datura	[ʈɔ.ʈɔ.rɔ:ʈ.pa:k]
95	Dream	[máŋ]
96	Ear	[bíl]
97	Earth	[lei.ʈúŋ]
98	Egg	[a:k.ʈùy]
99	Eye	[miʈ]
100	Earring	[bíl.ba?]
101	Elephant	[sai]
102	Eye-brow	[miʈ.múl]
103	Enemy	[mel.má]/[ga:l]
104	End	[bei]/[ʈɔ:p]
105	Egg plant	[man.ʈa.lú:m]
106	Fat	[tʰàu]
107	Father	[pá]
108	Feather	[múl]
109	Fear	[láu]
110	Fire	[mei.kwáŋ]
111	Fish	[ŋa]/[ŋa.sá]/[sa.ŋá]
112	Five	[ŋá]
113	Flower	[pa:k]
114	Fly	[le:ŋ]

115	Fog	[méi]
116	Foot	[kʰetɔ́]
117	Four	[li:]
118	Fruits	[tʰéi]
119	Fever	[kʰɔ.sik]
120	Finger	[kʰut̪.zú:ŋ]
121	Food	[ánn]
122	Forest	[gam.lak]
123	Farmer	[lɔu.na.se:m.mí]
124	Flood	[t̪uy.tsi:m]
125	Flowering	[pa:k.kʰjà]
126	Fragrant	[nam.t̪ùy]
127	Firewood	[siŋ.tsi?.t̪é]
128	Fig	[tʰei.pí]
129	Flour	[ann.vùy]
130	Flax	[vai.ann.tʰú:k]
131	Fodder	[gan.ánn]
132	Fungus	[pa.si:]
133	Fern	[t̪a.kɔ:k.síŋ]
134	Front	[ma:]
135	Fontanel(soft spot in baby skull)	[lu.sí:p]
136	Flesh	[t̪ak.sá:]
137	Guts	[haŋ.san]
138	Garlic	[pʰú.lu:n.ŋɔu]
139	God	[pa.tʰjan]
140	Gold	[sa.na.eŋ]
141	Grandfather	[pu:]
142	Grandfather(mother)	[pu.zɔn]
143	Grandmother(mother)	[pi.zɔn]
144	Green vegetables	[ánn̪.te?.lɔù.hiŋ]

145	Goat	[kè:l]
146	Ginger	[sí:ŋ]
147	Grist	[hai.tsi.t̪áŋ.hek.né:l]
148	Grass	[lɔu.pá]
149	Gourd	[u:m]
150	Hair	[sám]
151	Hand	[kʰut̪]
152	Head	[lu]
153	Heart	[luŋ.t̪áŋ]
154	Horn	[kí:]
155	Husband	[pa.sal]
156	House	[ínn]
157	House-fly	[tʰɔ́ú]
158	Heels	[kʰe,tu:l]/[sják]
159	Honey	[kʰwai.zu]
160	Herb	[lɔu.pá]
161	Hay	[buʔ.pɔ:l]
162	Harvesting	[buʔ.lá:]
163	Hand span	[kʰá:p]
164	Hiccup	[sa.ik]
165	Ice	[vuk.kʰál]
166	Itch	[tʰak]
167	Iron-smith	[si:k.se:k.t̪ú]
168	Knee	[kʰú:k]
169	King/Chief	[kum.pi.pá]
170	Lake	[d̪i:l.ljan]
171	Leaf	[naʔ.teʔ]/[siŋ.teʔ]
172	Left-side	[vei.lám]
173	Leg	[kʰè]
174	Lie(to be on a lying position)	[si:k.lup]

175	Liver	[sìn]
176	Louse	[hik]
177	Language	[pàu]
178	Lion	[hum.pi.né:l.kài]
179	Lips	[mù:k]
180	Liquor	[zu:]
181	Landlord	[gam.nei.ʈú]
182	Letter	[lai.tʰɔn]
183	Love	[i:ʈ.na]
184	Leaf	[siŋ.ʈe?]/[siŋ.na?]
185	Log	[siŋ.ʈúm]
186	Lime	[se:k.zɔ́:l]
187	Lemon	[se:k.tʰú:k]
188	Leek	[pʰu.lun.bul.ba:l.saɳ]
189	Lemon grass	[ʈʰal.síŋ]
190	Lichen	[siŋ.pá:n]/[swaŋ.pá:n]
191	Leguminous	[ga:p.nèi]
192	Limbs	[ba:n]
193	Lap	[pʰèi]
194	Mango	[hai]
195	Medicine	[dam.dɔì]
196	Milk	[bɔŋ.nɔí]
197	Mirror	[li:m.làŋ]
198	Money	[sum]/[daŋ.kà]
199	Mosquito	[tʰɔu.ká:ŋ]
200	Mouse	[zu.sá]
201	Maize	[vai.mi:m]
202	Memory	[tʰei?.na]
203	Monkey	[zɔ:ŋ]

204	Mulberry	[siŋ.tʰei.min]
205	Malt	[dja?.pwam]
206	Mushroom	[pa.te?]
207	Marigold	[tʰaŋ.lei.pa:k]
208	Misletoe	[la:ŋ.bɔ:m]
209	Mill	[ann.su.kʰɔ́:l]
210	Millstone	[ann.gɔì.na]
211	Mind	[luŋ.sim]
212	Meat	[sá:]
213	Man/Male	[a.pá]
214	Many	[t̪am.pí]
215	Mouth	[kam]
216	Moon	[kʰà]
217	Mountain	[t̪a:ŋ]
218	Name	[min]
219	Nose	[nà:k]
220	Neck	[ŋɔ:ŋ]
221	Night	[ni.tá:k]
222	Nails	[kʰut̪.tsín]
223	Necklace	[kʰi]
224	Nose pin	[nà:k.ba?]
225	Nectar	[pa:k.zù]
226	Nut	[mú]
227	Nutshell	[tʰei.ga?.suŋ.mú]
228	One	[kʰat]
229	Oil	[tʰau.túy]/[sa.tʰàu]
230	Onion	[pʰu.lu:n]
231	Orchid	[lwai.le:ŋ]
232	Opium	[ka.ní]
233	Peacock	[u.t̪ɔŋ]

234	Pain	[na:]
235	Pond	[n̪úy.kuːl?]/[d̪i:l]
236	Pod	[ga?]
237	Pulp	[zuŋ]
238	Plant	[síŋ.le?.lɔu]
239	Pip	[tʰei.t̪áŋ]
240	Pit	[tʰei.ga?.t̪áŋ]
241	Pineapple	[le:ŋ.tʰéi]
242	Plantain	[vɔk.pi.bíl.t̪e?]
243	Parsemon	[sa.me.ga?]
244	Peach	[tʰei.múl]
245	Papaya	[siŋ.t̪aŋ.mai]
246	Pumpkin	[mai]
247	Paddy field	[za:ŋ.lɔú]
248	Popcorn	[vai.mi:m.kan.pwák]
249	Pussy willow	[muy.sú:m]
250	Palm	[t̪u:m.kúŋ]
251	Pine	[t̪a:k.síŋ]
252	Poppy	[ka.ni.kúŋ]
253	Poppy seed	[ka.ni.táŋ]
254	Phalanx	[t̪ú:k]
255	Pus	[n̪ai]
256	Petal	[pa:k.pal?]
257	Planting	[swáŋ̪]
258	Rain	[vwa?]
259	River	[lù:y]
260	Road	[lam.pí]
261	Root	[zúŋ]
262	Rope	[kʰa:u]
263	Rice	[ánn]

264	Rice(raw)	[buʔ.sì]
265	Root	[a.búl.a.bá:l]
266	Rind	[tʰéi.gaʔ.hɔ:ŋ]
267	Ripening	[min.kʰjà]
268	Sheep	[be.là:m]
269	Shop	[sum.bú:k]
270	Silver	[sa.n̪a.ŋɔu]
271	Sparrow	[kɔl.gí:t̪]
272	Sugarcane	[kɔ:l.t̪u]
273	Sweet-potato	[kɔl.kaì]
274	Stem	[naʔ.pa.kuŋ]
275	Sap	[n̪ai]
276	Seed	[a.mú]/[a.t̪áŋ]
277	Shoot	[sel.t̪ʰak]
278	Stump	[síŋ.bul]
279	Stock	[tsjáŋ.kaŋ]
280	Splinter	[síŋ.tʰem]
281	Sawdust	[siŋ.á:t̪ vu:y]
282	Sapling	[siŋ.nɔú]
283	Shrub	[lɔu.pa.njám]
284	Squash	[i:skút̪]
285	Sorghum	[kan.pwák]
286	Sandalwood	[vɔŋ.n̪am.síŋ]
287	Savori	[muy]
288	Sesame	[sí:]
289	Syrup	[t̪úy.kʰum]
290	Straw	[buʔ.kuŋ]
291	Sheave	[buʔ.pʰàl.ga:k.lɔp]
292	Slime	[n̪ai]
293	Sun-flower	[n̪i.pí:pa:k]

294	Starch	[aŋŋná:ŋ]
295	Side(right)	[t̪ak.lám]
296	Side(left)	[vei.lám]
297	Sleep	[i?.mu:]
298	Skull	[lu.gu?]
299	Scalp	[lu.leí]
300	Salt	[t͡si]
301	Sand	[pjau.n̪é:l]
302	Sea	[t̪uy.pí]
303	Seed	[t̪áŋ]
304	Skin	[vún̪]
305	Sky	[va:n̪.túŋ]
306	Smell	[nàm]
307	Smoke	[mei.kʰú]
308	Snake	[gu:l]
309	Snow	[vu:k]
310	Star	[a:k.sí]
311	Stick	[t͡sjáŋ]
312	Stone	[swáŋ]
313	Sun	[n̪i:]
314	Sari	[pwa.zá]
315	Shawl	[pwán̪.sil?]
316	Sister (elder)	[saŋ.gam.nu.méi]
317	Sister's husband	[ma:k.pá]
318	Spectacles	[mit̪.bul?]
319	Spoon	[kéu]
320	Sugar	[t͡si.ni]
321	Tail	[méi]
322	Three	[tʰúm]
323	Tongue	[lei]

324	Tooth	[ha:]
325	Tree	[siŋ.kúŋ]
326	Two	[ni?]
327	Twenty	[sɔ:m.ni?]
328	Turmeric	[ai.eŋ]
329	Thumb	[kʰuʈ.pí]
330	Tailor	[pwán.kʰuy.ʈú]
331	Teacher	[sin.sak.ʈú]
332	Tongs	[ʈai.ʈe?]
333	Tuber	[zuŋ.néi]
334	Thorn	[liŋ.ɳéi]
335	Tree-trunk	[siŋ.ka.pí]
336	Twig	[siŋ.bɔ́:k]
337	Timbre	[siŋ.a:ʦá]
338	Tinder	[méi.lé]
339	Tamarind	[mak.kéŋ]
340	Tomato	[me?.tʰú:k]
341	Taro	[bá:l]
342	Thatch	[bu?.pɔ:l]
343	Tannin	[siŋ.hɔ:ŋ.kʰum.ʈú:y]
344	Teak	[ɖɔ́l]
345	Toadstool	[pa.sjálné:k]
346	Tea	[siŋ.pí]
347	Tobacco	[ɖùm]
348	Tree less	[gam.ʈul]
349	Top (of head)	[lu.sí:p]
350	Unripe	[miɳ.lɔu]
351	Unhusked rice	[bu?.hù:m]
352	Uproot	[zúŋ.kàl]

353	Uncultivated	[kʰɔʔ.lɔuʔ]
354	Village	[kʰɔ.ʈá]
355	Vine	[le:ŋ.gaʔ.gúy]
356	Vinegar	[tʰil.tʰú:k.túy]
357	Verdant	[hiŋ.ɖip.ɖep]
358	Water	[ʈú:y]
359	Wife	[zi:]
360	Wind	[huyʔ]
361	Wing	[kʰà]
362	Women	[ɳu.mei.pi.tsiŋ]
363	Woods	[siŋ.zɔ:l]
364	Worms	[luŋ.ɳɔú]
365	War	[ki.ɖɔu]
366	Weaver	[gà:n.ʈú]
367	Well	[ʈù:y.kulʔ]
368	Worship	[bjà]
369	Willow	[muy.sú:m]
370	Winnowing	[kʰi.kʰjà]
371	Work	[ɳa.sep]

VERB CLASS

1	Awake	[halʔ]/[pʰɔ:k]
2	Bite	[peʈ]
3	Breathe	[nà:k]
4	Bathe	[ki.síl]
5	Begin	[pàn]
6	Buy	[léi]
7	Bloom	[pa:k]
8	Come	[hɔŋ.pai]

9	Count	[sim]
10	Cut	[á:t̲]
11	Cough	[kʰu?]
12	Cry	[kap]
13	curse	[ha:m.sjà]
14	Cultivate	[hai.t͡si.t͡si:ŋ]
14	Cultivated	[hai.t͡si.t͡sì:n]
16	Die	[si]
17	Drink	[ɖɔ:n]
18	Droop	[kwài]
19	Dance	[la:m]
20	Eat	[né]
21	Earn	[lɔ?]/[ŋa?]
22	Fall	[kjà]
23	Fight	[ki.swal]
24	Float	[ki.là:m]
25	Flow	[lwaŋ]
26	Fly	[le:ŋ]
27	Freeze	[kʰàl]
28	Feed	[va:k]
29	Ferment	[um]
30	Fart	[vei?.saŋ]
31	Give	[pjá]
32	Germinate	[ɖ̀ɔ:n]/[kják]/[pɔu]
33	Hear	[zá]
34	Hit	[kʰè:n]
35	Hold	[lè:n]/[t̲ɔi]
36	Hunt	[béŋ]/[zɔŋ]
37	Ice	[vuk.kʰal]
38	Ill	[t͡si.nà]/[ɖam.lɔ́u]

39	Kill	[tʰaʈ]
40	Laugh	[ɳu:y]
41	Lie	[zwàu]
42	Milled	[aɳɳ.suk.sá]
43	Play	[ki.məl]
44	Pull	[kaì]
45	Push	[sɔ:n]
46	Rub	[nɔ́:ʈ]
47	Run	[ʈai]
48	Read	[sim]
49	Remember	[pʰɔ́:k]
50	Ripen	[min.sak]
51	Rot	[mwáʈ]
52	Rotted	[mwaʈ.kʰin]
53	Reap	[á:ʈ]
54	Say	[gé:n]
55	Scratch	[kʰwáʈ]
56	See	[mù]
57	Sew	[kʰu:y]
58	Shiver	[lí:ŋ]
59	Sing	[sà]
60	Sit	[ʈu]
61	Spit	[t͡sil.sjá]
62	Squeeze	[me:k]
63	Stab	[ɖɔ́:ʈ]/[sùɳ]
64	Stand	[ɖiŋ]
65	Suck	[ʈɔ́:p]
66	Swell	[bɔ:k]
67	Swim	[zap]

68	Shoot	[ka´:p]
69	Sell	[zwak]
70	Sow	[t̪u?]
71	Sowed	[t̪u?.kʰin]
72	Sneeze	[ha?.t͡sjái]
73	Think	[ŋai?.t̪wa?]
74	Throw	[d̪e:ŋ]
75	Tie	[kʰi?]
76	Turn	[kihei]/[kwal]
77	Teach	[sin.sak]
78	Thresh	[bu?.vwà]
79	Till	[lɔu.kài]
80	Vomit	[lwà]
81	Wipe	[nul.sjaŋ]
82	Weave	[gà:n]
83	Write	[gel?]
84	Winnow	[kʰi.sjaŋ]
85	Wither	[vwai]
86	Wilted	[vul.kʰin]
87	Work	[na.sep]

ADJECTIVE CLASS

1	All	[a.vek.in]
2	Bad	[hɔi?.lɔù]
3	Big	[ljàn]
4	Cheap	[maŋ.t̪ɔ:m]
5	Costly	[man.tám]
6	Daily	[n̪i.t̪eŋ]
7	Double	[tʰwa?.ni?]

8	Dull	[ŋúy]
9	Far	[gam.lá]
10	Few	[ʈɔ:m]
11	Full	[ɖím]
12	Fragrant	[ɳam.ʈu:y]
13	Good	[hɔi?]
14	Heavy	[gik]
15	Hot	[sa]
16	Hard	[ʈa:k]
17	Leftside	[vei.lám]
18	Long	[sáu]
19	Lazy	[tʰa.ɖa?]
20	Lonely	[tʰɔm.háu]
21	Many	[ʈam.pí]
22	Mad	[hái]
23	Narrow	[kɔ.tsí:k]
24	New	[ʈʰák]
25	Numb	[kɔŋ.kɔ]
26	(a) Old(inanimate) (b) Old(animate)	[luy] [ʈupá]
27	One	[kʰaʈ]
28	Other	[mi.ɖáŋ]
29	Right/correct	[a.ɖik]
30	Rotten	[mwaʈ.sjá]
31	Round	[bjal]
32	Ripe	[tʰei.min]
33	Short	[ʈɔ́m]
34	Small	[né:u]
35	Smooth	[ma:m]
36	Some	[ʈɔ:m.tsik]

37	Straight	[t̪àŋ]
38	Slim	[pan]
39	Thin	[gɔ:ŋ]
40	Warm	[lum]
41	Wet	[kɔ́:t̪]
42	White	[ŋɔu]
43	Wide	[za:]
44	What	[bàŋ]

ADVERB CLASS:

1	Down	[nwái]
2	Far	[gam.lá]
3	Here	[hjái a?]
4	How	[baŋ.t̄si.d̪àn]
5	Near	[kjaŋ.nái]
6	Not	[lɔù]
7	When	[baŋ.t̄sik]
8	Where	[kɔi.a?]

PREPOSITION/CONJUNCTION/DEMONSTRATIVE/PRONOUN CLASS:

1	At	[a?]
2	In	[a?]
3	And	[le?]
4	Because	[a.zjak.t̄su(?)]
5	If	[hi.le?.lé]
6	That	[hwái]
7	This	[hjái]
8	There	[hwa?]

9	Thou	[ɲáŋ]
10	They	[amau]
11	He/She	[ama?]
12	His	[hwái.pa á]/[ama? á]
13	Hers	[hwai.nu á]/[ama? á]
12	We	[kɔù]
13	Who	[kwà]
14	With	[ʈɔ?]

APPENDIX –II

List of informants

1) Name: Doupiak Vualnam
   Gender: Male
   Age: 19
   Occupation: Student
   Language: Paite,English.

2) Name : K.Muanthang Ngaihte
   Gender: Male
   Age: 23
   Occupation: Student
   Language: Paite, English, Spanish.

3) Name: T. Lamthianmung
   Gender: Male
   Age: 20
   Occupation: Student
   Language: Paite, English, Hindi.

4) Name: Dallunmuan Guite
   Gender: Male
   Age: 21
   Occupation: Student
   Language: Paite, English, Hindi, Manipuri, French.

5) Name: Langkhankhup Ngaihte
   Gender: Male
   Age: 23
   Occupation: Student
   Language: Paite, English, Hindi, Korean.

6) Name: H.Kapsuanmung
   Gender: Male
   Age: 22
   Occupation: Student
   Language: Paite, English.

7) Name: G.Thuamkhanmang
   Gender: Male
   Age: 21
   Occupation: Student
   Language: Paite, English.

8) Name: Vungsuanlal Kullai
   Gender: Male
   Age: 22
   Occupation: Student
   Language: Paite, English, Manipuri, Hindi.

9) Name: Manthianching
   Gender: Female
   Age: 23
   Occupation: Student
   Language: Paite, Hindi, English.

10) Name: Priscilla Niangdeihkim Guite

Gender: Female

Age: 23

Occupation: Student

Language: Paite, English, Hindi, Mizo.

11) Name: Zenngaihlun Tonsing

Gender: Female

Age: 23

Occupation: Student

Language: Paite, English, Hindi.

12) Name: Muanching

Gender: Female

Age: 20

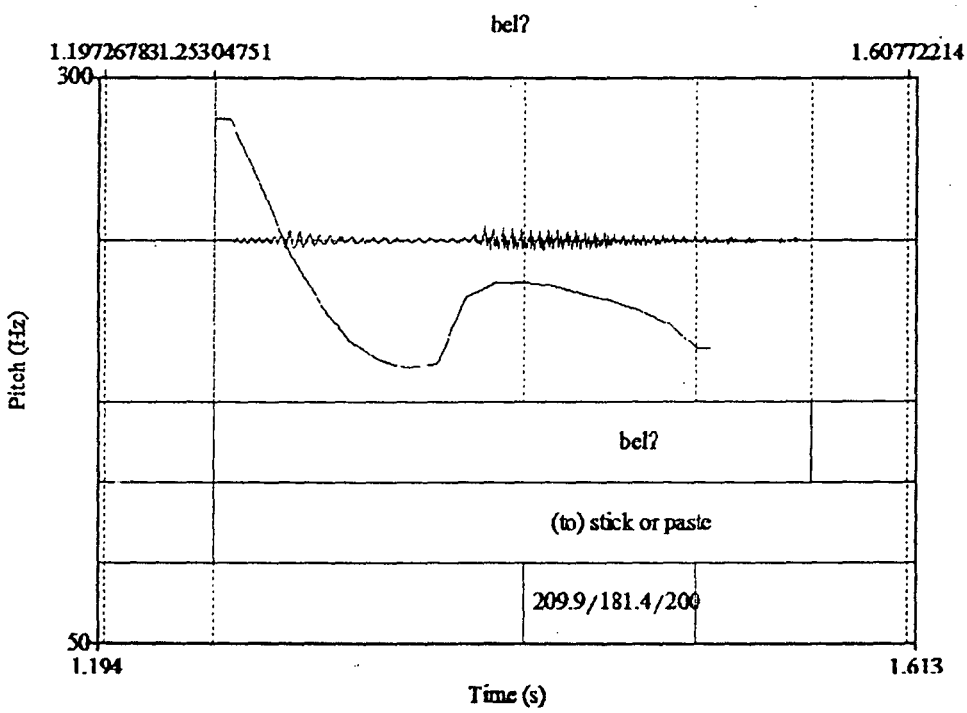
Occupation: Student

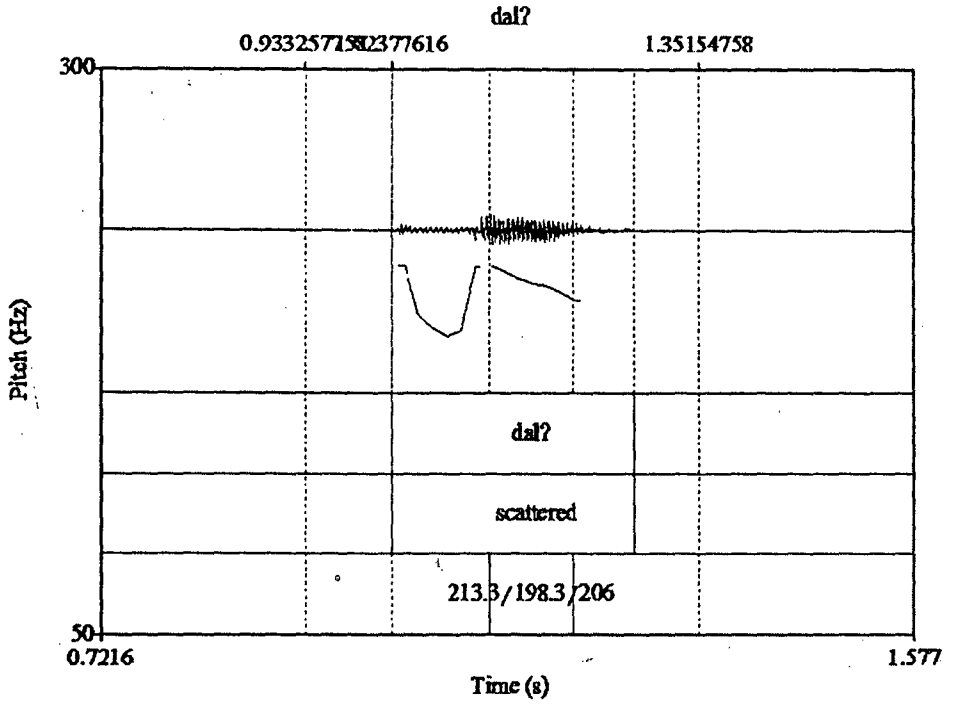
Language: Paite, English, Mizo, Manipuri.

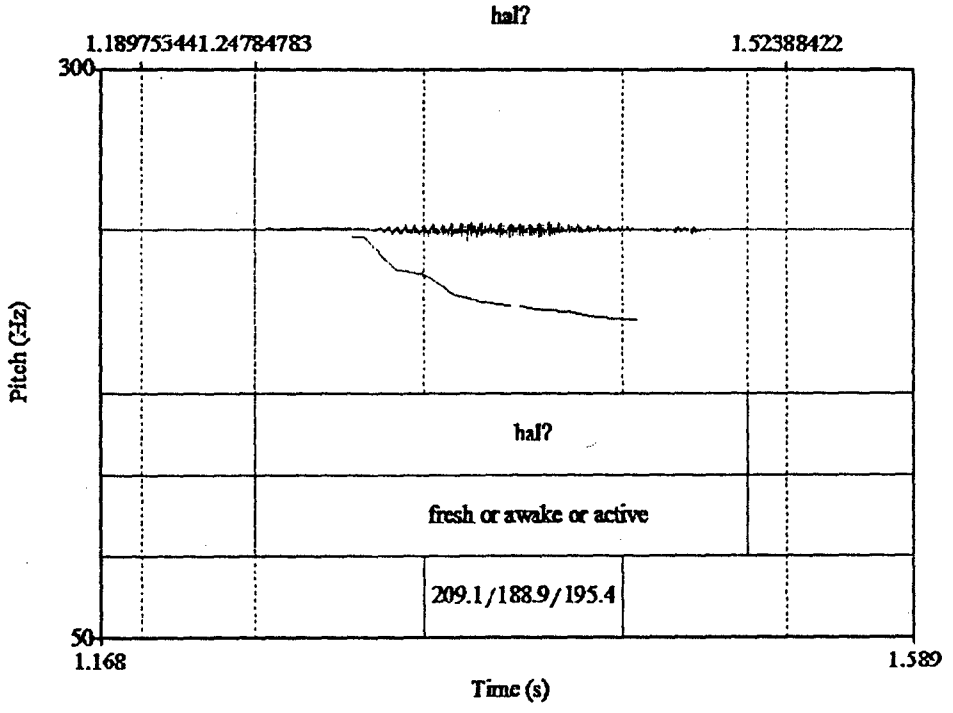
APPENDIX – III

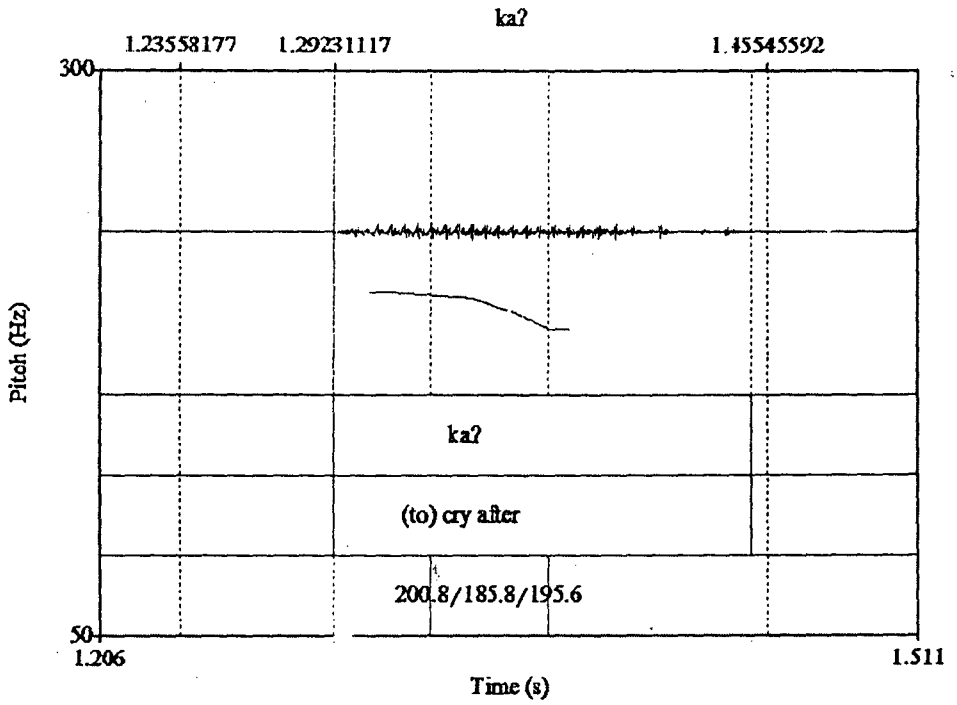
Figures of register tones of Paite

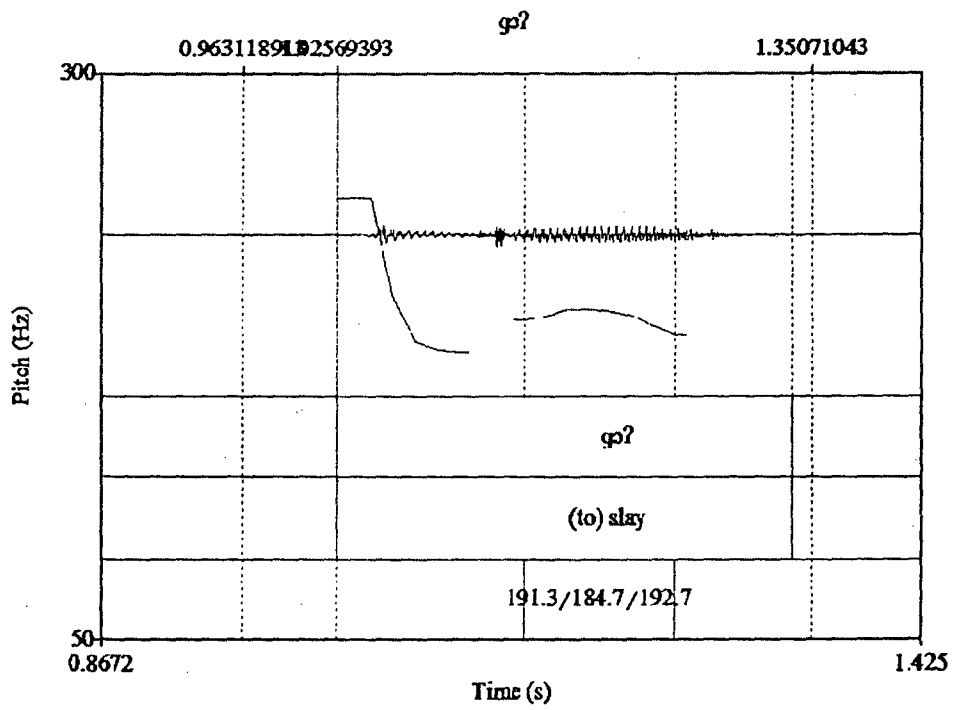
RT – 2

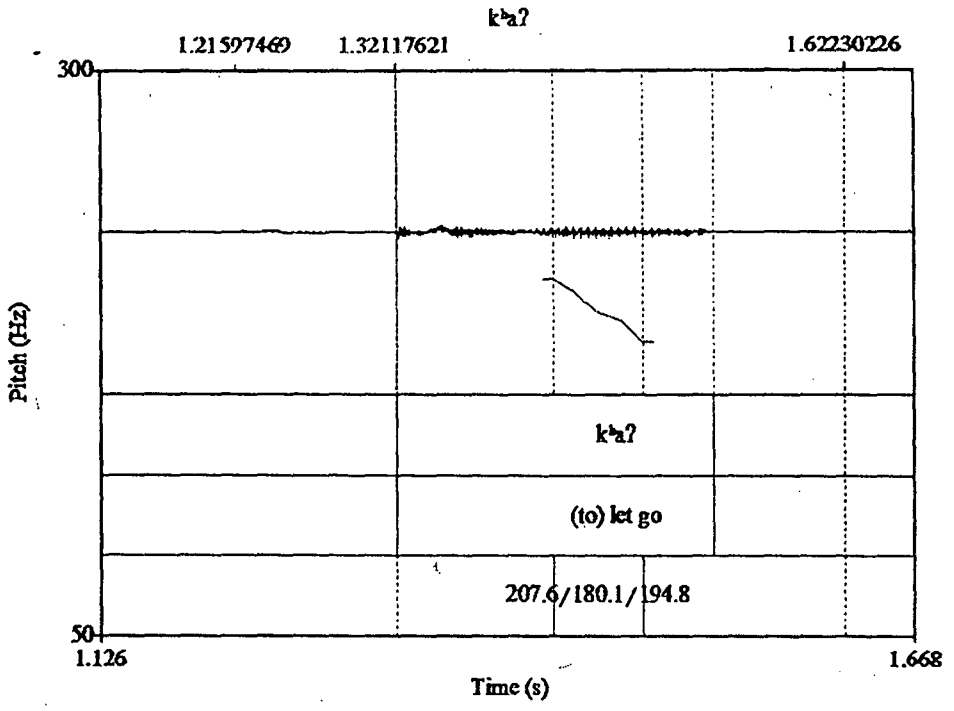


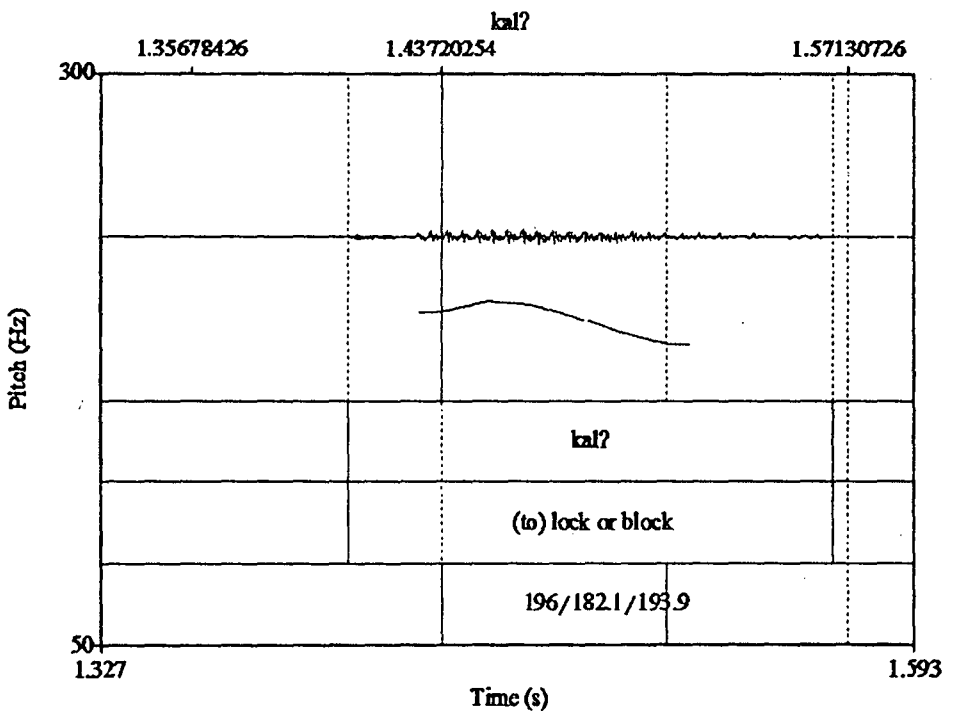

dal?
0.93325715802377616
1.35154758
300
Pitch (Hz)
dal?
scattered
213.3/198.3/206
50
0.7216
1.577
Time (s)

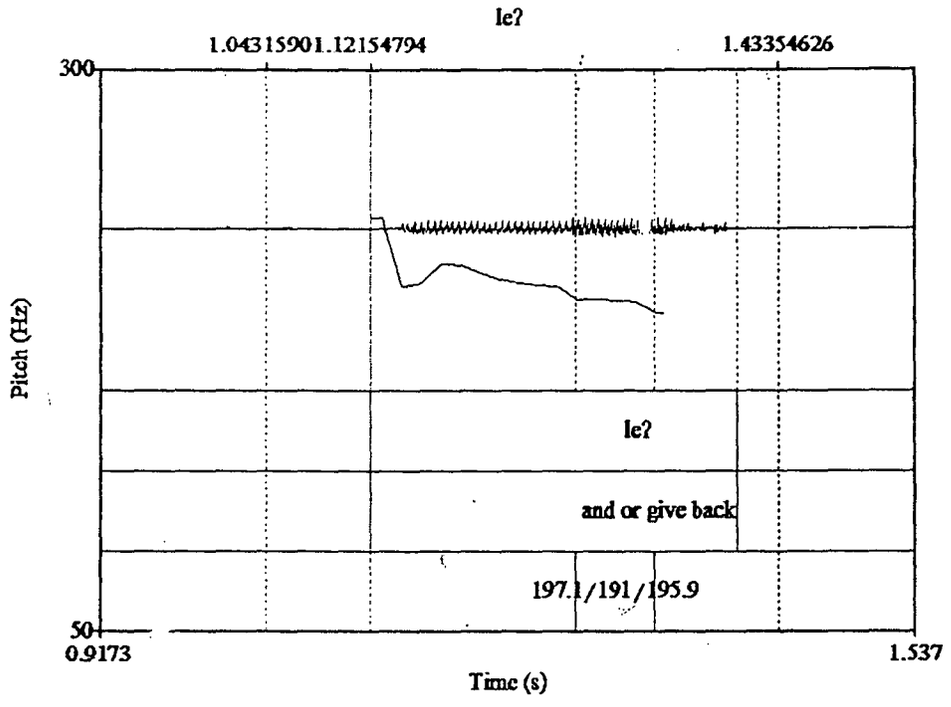

hal?
1.1897554 41.24784783
1.52388422
300
Pitch (Hz)
hal?
fresh or awake or active
209.1/188.9/195.4
50
1.168
1.589
Time (s)

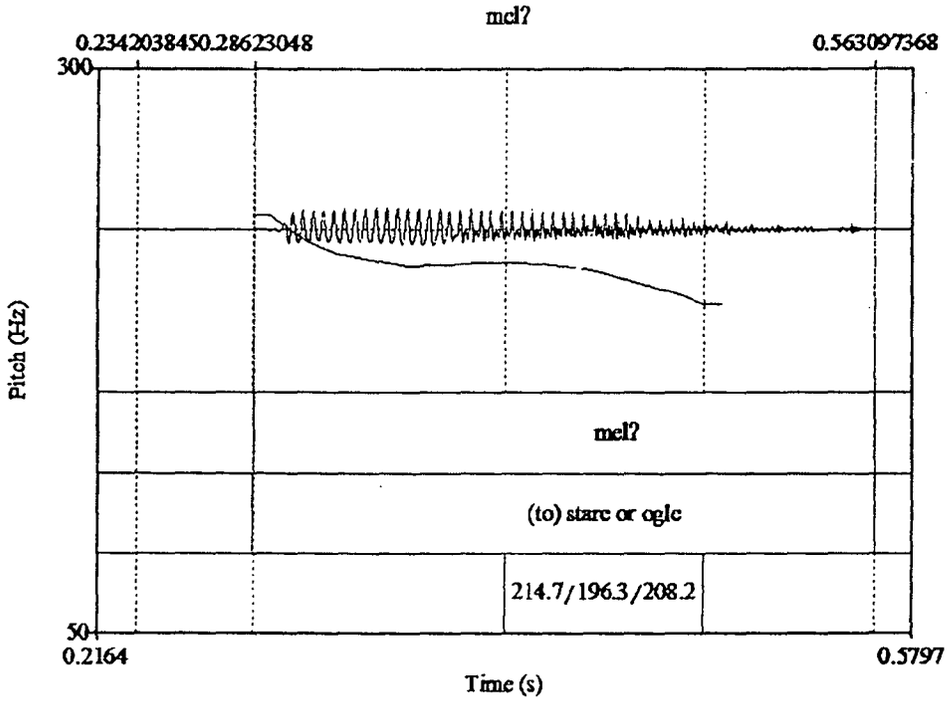

ka?
1.23558177
1.29231117
1.45545592
300
50
Pitch (Hz)
ka?
(to) cry after
200.8/185.8/195.6
1.206
1.511
Time (s)

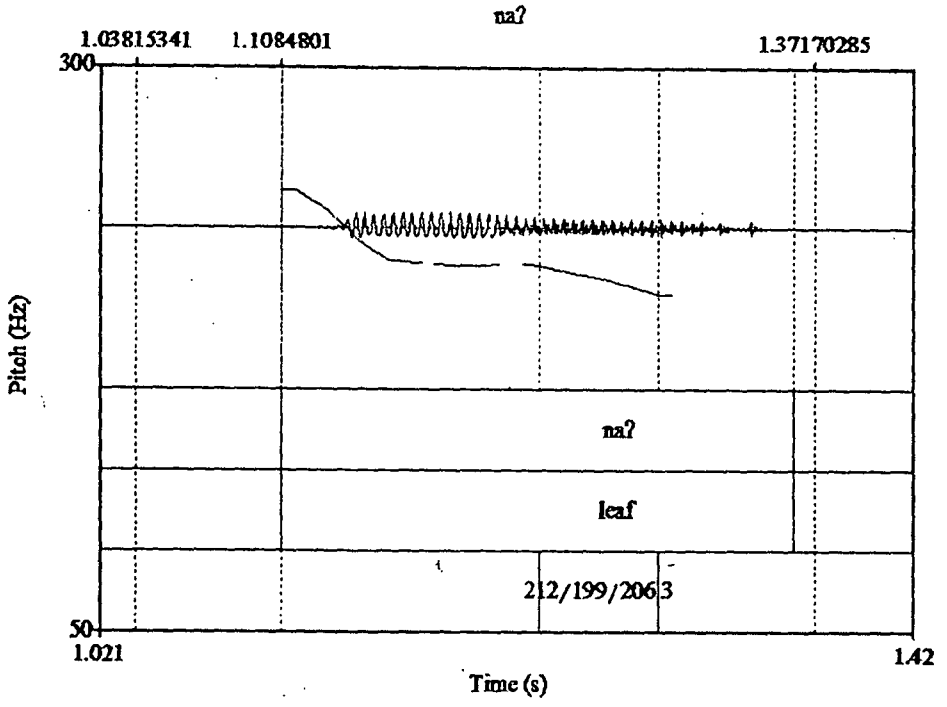

qo?
0.96311891
1.35071043
300
50
Pitch (Hz)
qo?
(to) slay
191.3/184.7/192.7
0.8672
1.425
Time (s)

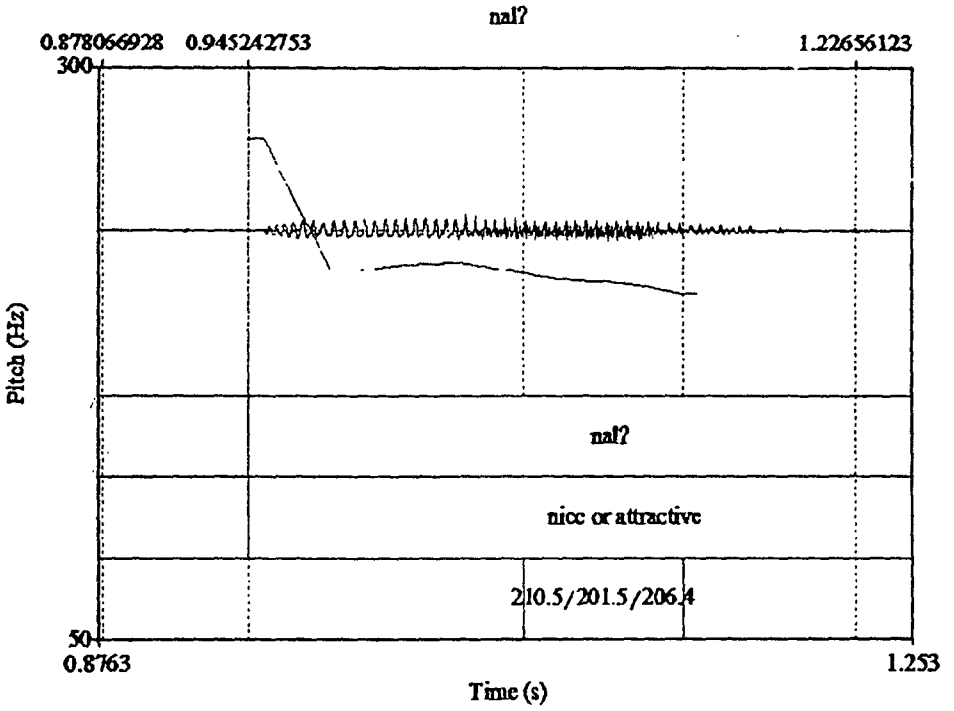

kʰa?
1.21597469
1.32117621
1.62230226
300
50
Pitch (Hz)
kʰa?
(to) let go
207.6/180.1/194.8
1.126
1.668
Time (s)

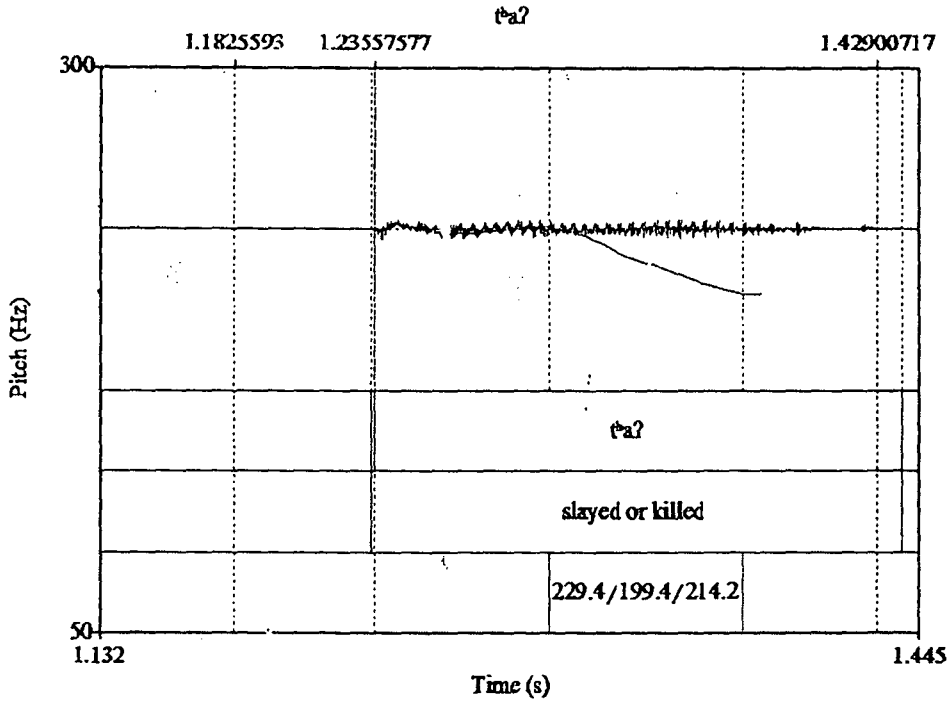

kal?
1.35678426
1.43720254
1.57130726
300
50
Pitch (Hz)
kal?
(to) lock or block
196/182.1/193.9
1.327
1.593
Time (s)

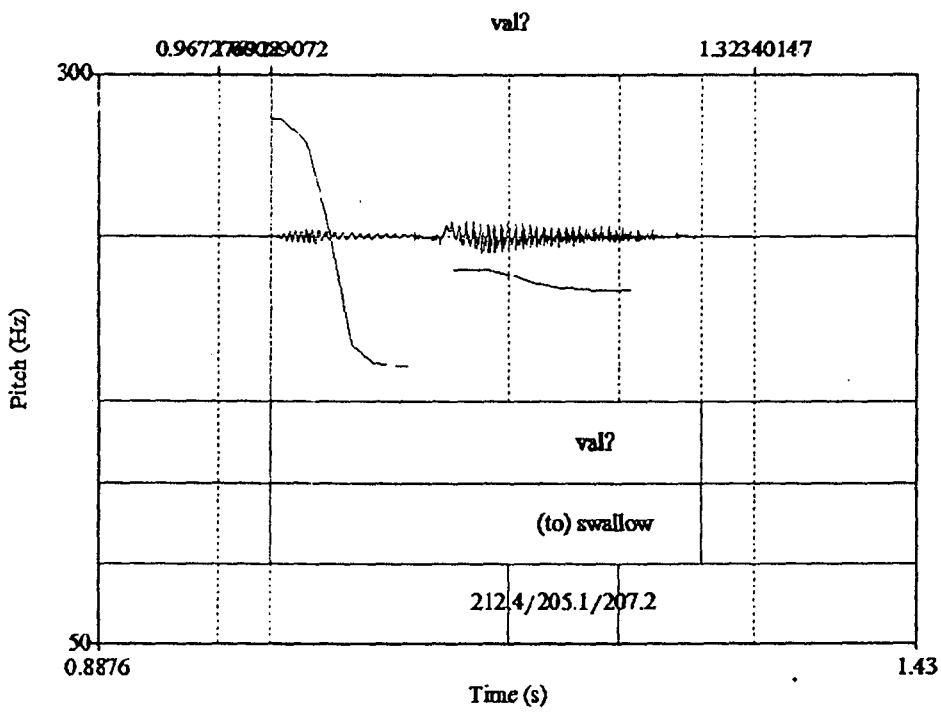

le?
1.04315901.12154794
1.43354626
300
Pitch (Hz)
le?
and or give back
197.1/191/195.9
50
0.9173
1.537
Time (s)

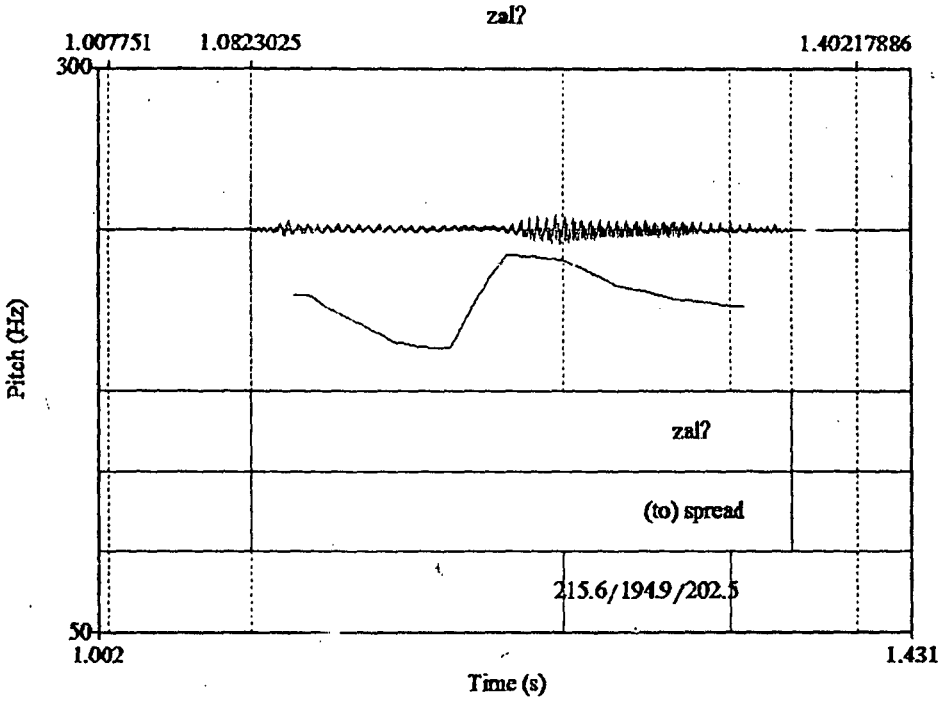

mel?
0.2342038450.28623048
0.563097368
300
Pitch (Hz)
mel?
(to) stare or ogle
214.7/196.3/208.2
50
0.2164
0.5797
Time (s)

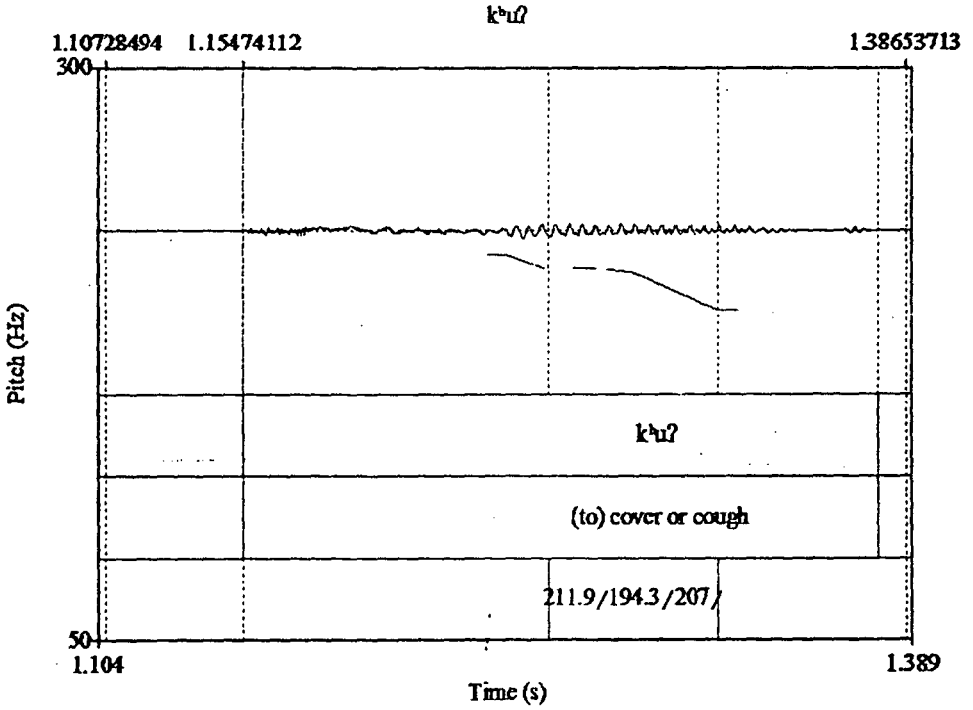

na?
1.03815341
1.1084801
1.37170285
300
50
Pitch (Hz)
na?
leaf
212/199/206.3
1.021
1.42
Time (s)


nal?
0.878066928
0.945242753
1.22656123
300
50
Pitch (Hz)
nal?
nice or attractive
210.5/201.5/206.4
0.8763
1.253
Time (s)

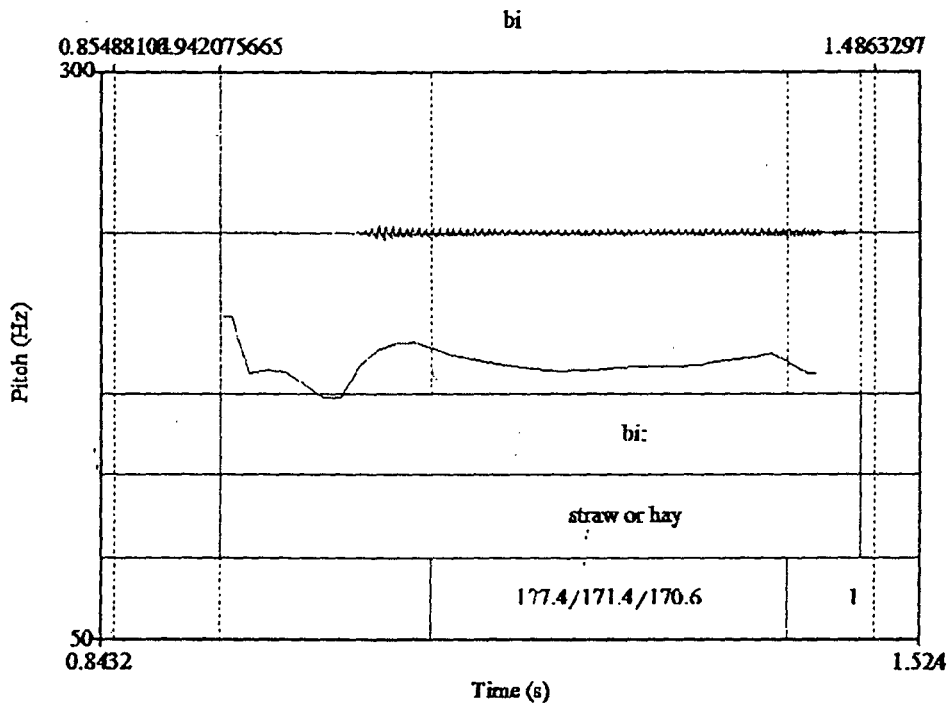

t*a?
1.1825593
1.23557577
1.42900717
300
50
Pitch (Hz)
t*a?
slayed or killed
229.4/199.4/214.2
1.132
1.445
Time (s)

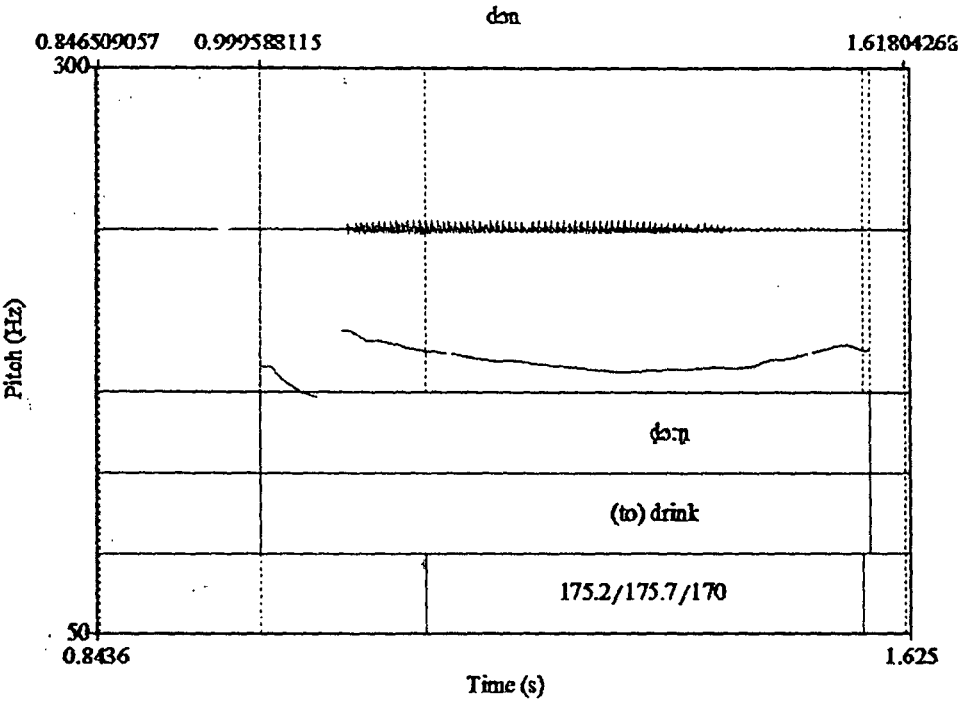

val?
0.96727689029072
1.32340147
300
50
Pitch (Hz)
val?
(to) swallow
212.4/205.1/207.2
0.8876
1.43
Time (s)

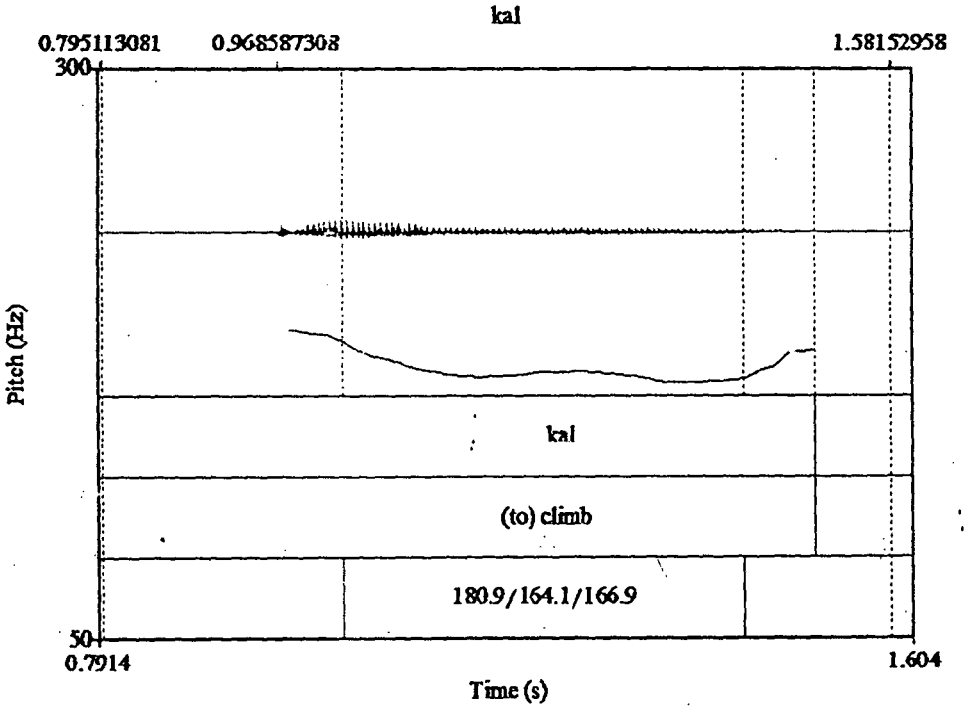

zal?
1.007751
1.0823025
1.40217886
300
Pitch (Hz)
zal?
(to) spread
215.6/194.9/202.5
50
1.002
1.431
Time (s)

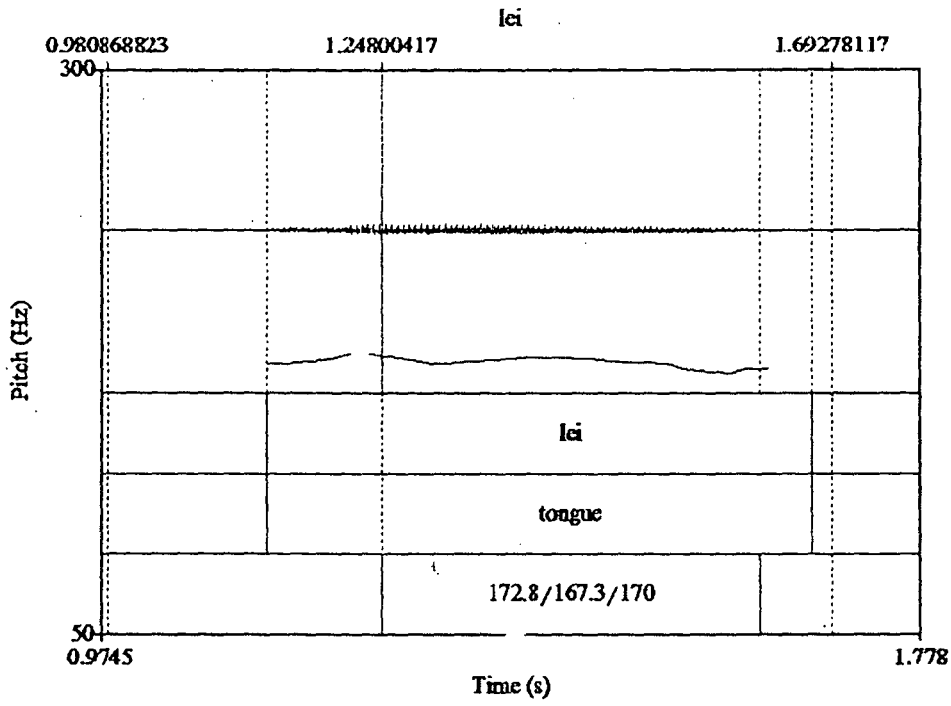

kʰu?
1.10728494
1.15474112
1.38653713
300
Pitch (Hz)
kʰu?
(to) cover or cough
211.9/194.3/207/
50
1.104
1.389
Time (s)

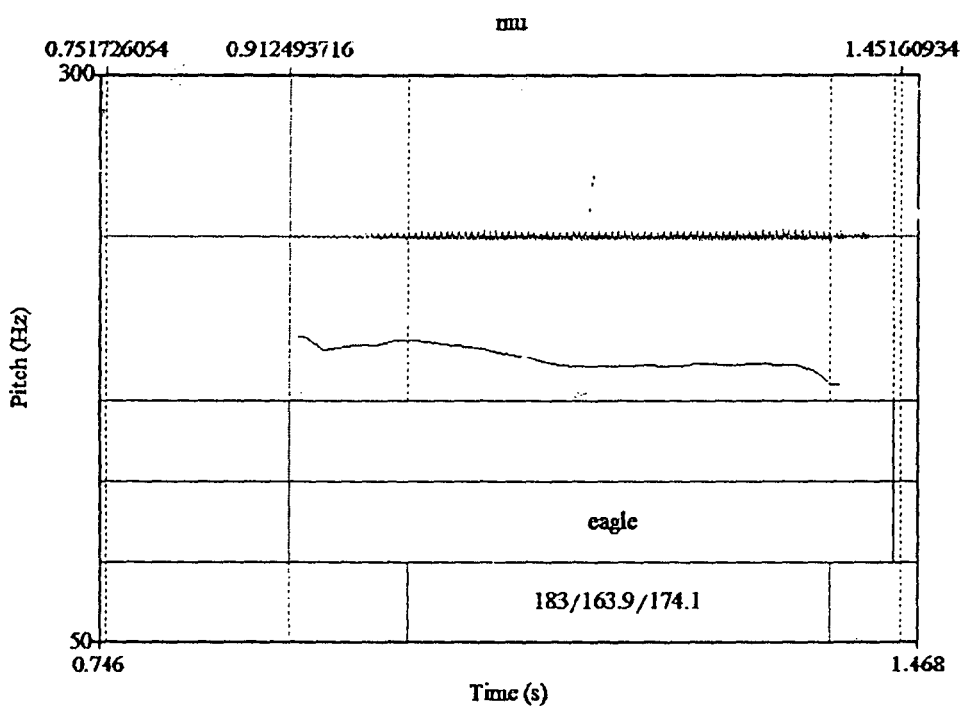
RT 1 –

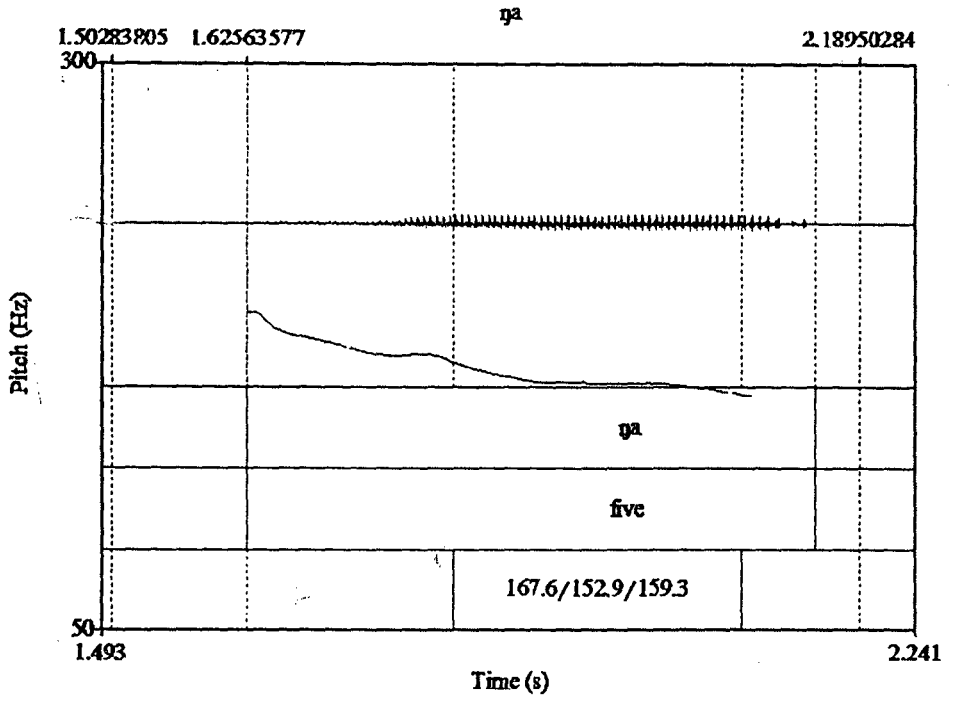

bi
0.85488108
1.4942075665
1.4863297
300
50
Pitch (Hz)
bi:
straw or hay
177.4/171.4/170.6
1
0.8432
1.524
Time (s)

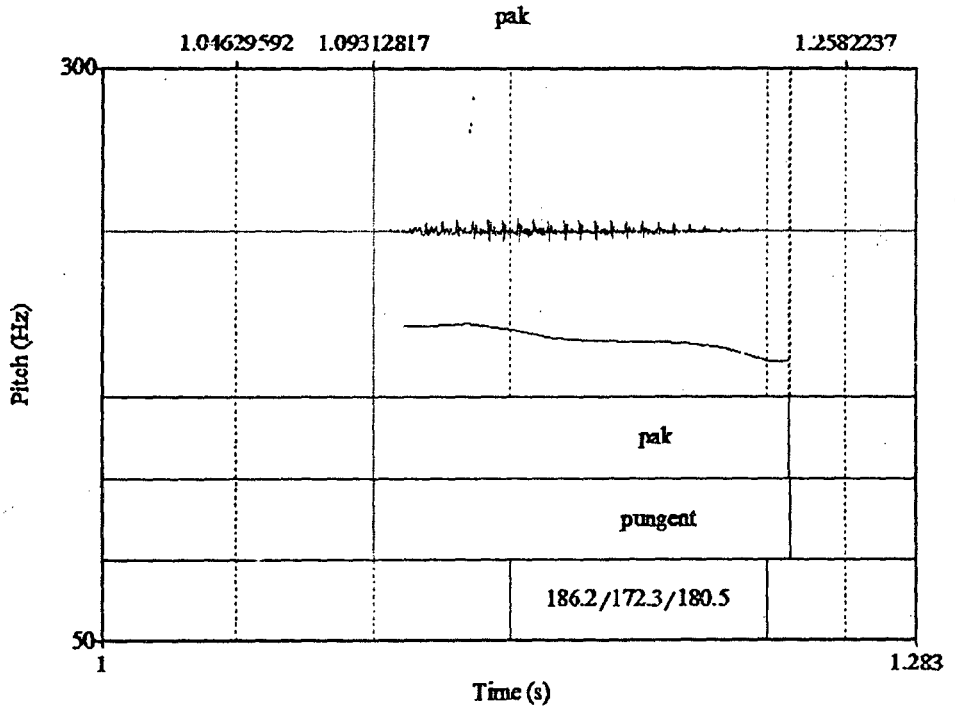

dɔn
0.846509057
0.999588115
1.61804268
300
Pitch (Hz)
dɔn
(to) drink
175.2/175.7/170
50
0.8436
1.625
Time (s)

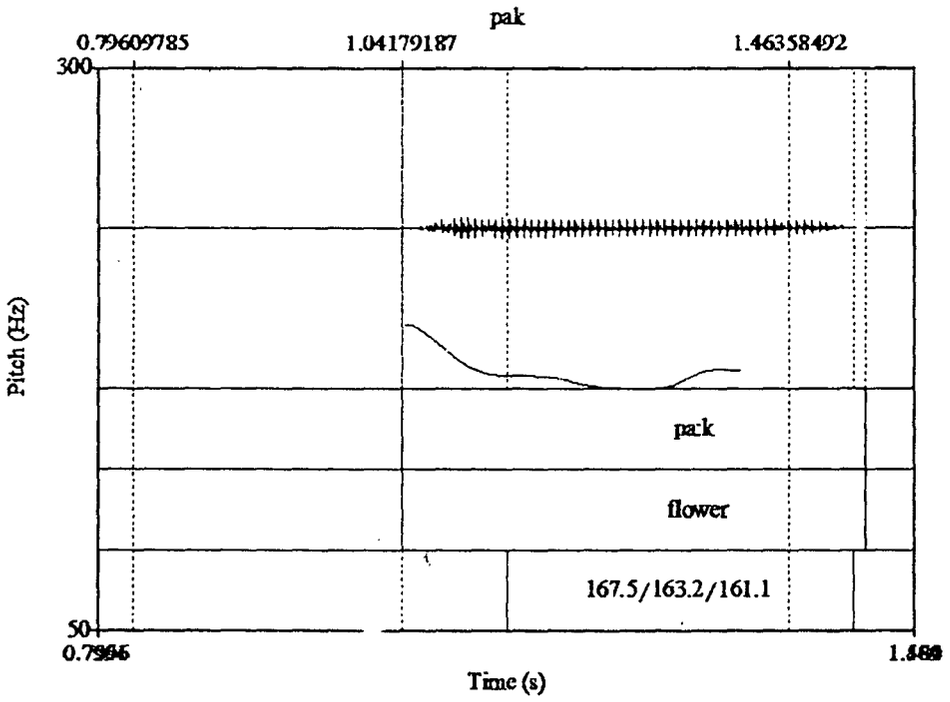

kal
0.795113081
0.968587308
1.58152958
300
Pitch (Hz)
kal
(to) climb
180.9/164.1/166.9
50
0.7914
1.604
Time (s)

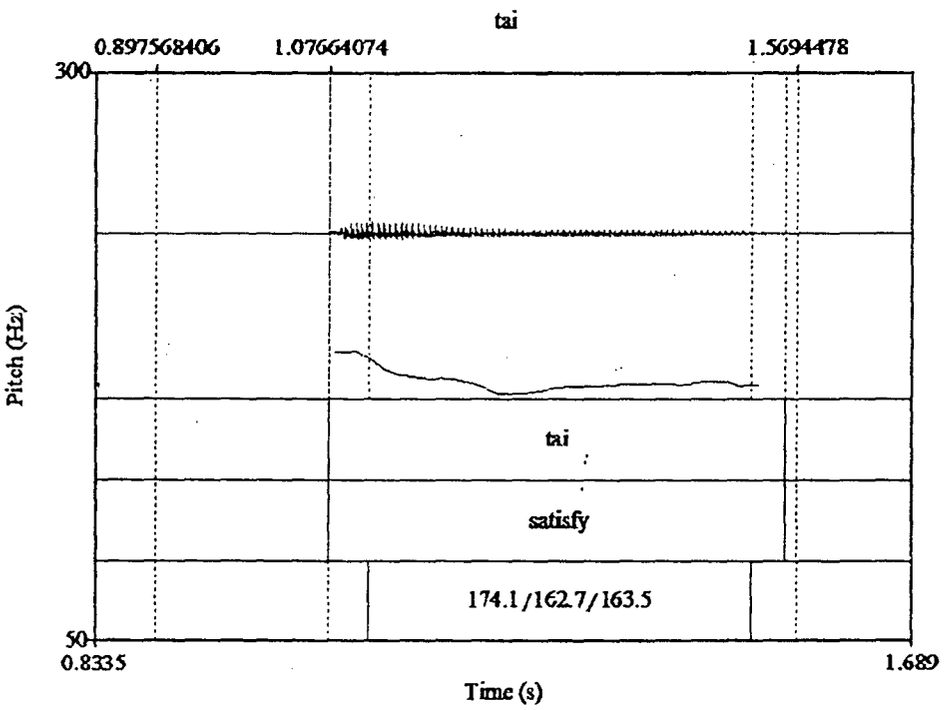

lei
0.980868823
1.24800417
1.69278117
300
Pitch (Hz)
lei
tongue
172.8/167.3/170
50
0.9745
1.778
Time (s)

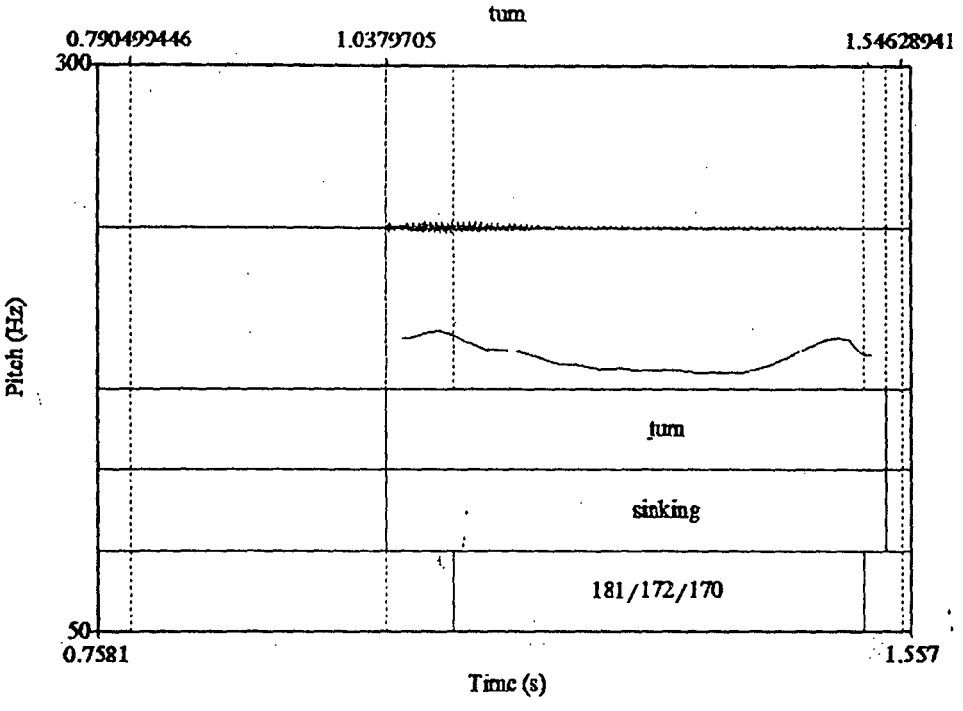

mu
0.751726054
0.912493716
1.45160934
300
Pitch (Hz)
eagle
183/163.9/174.1
50
0.746
1.468
Time (s)

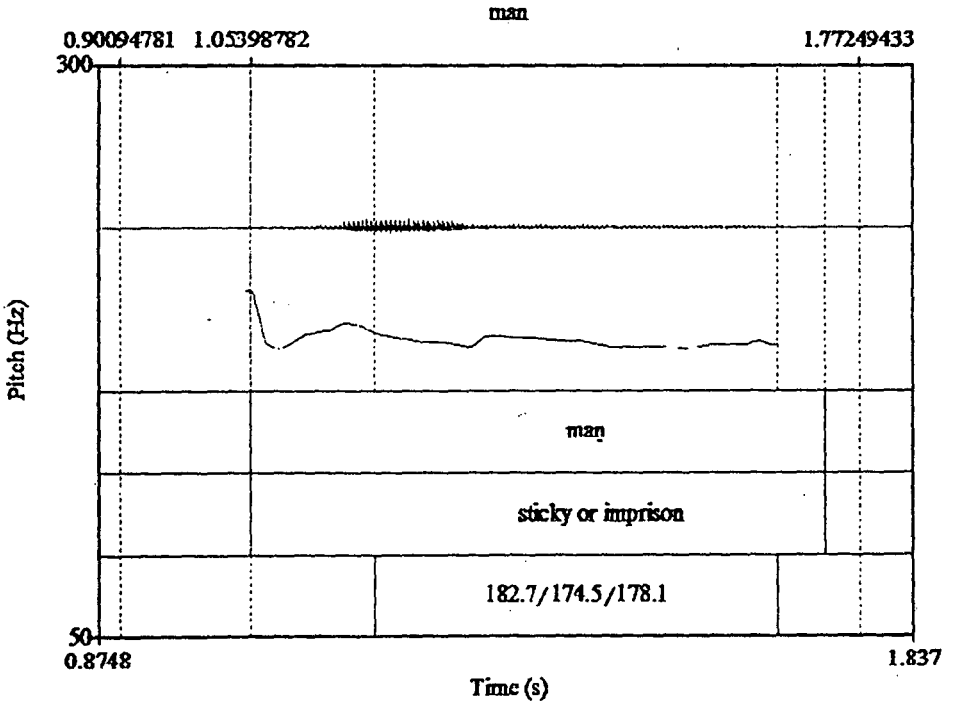

pa
1.50283805
1.62563577
2.18950284
300
50
Pitch (Hz)
pa
five
167.6/152.9/159.3
1.493
2.241
Time (s)

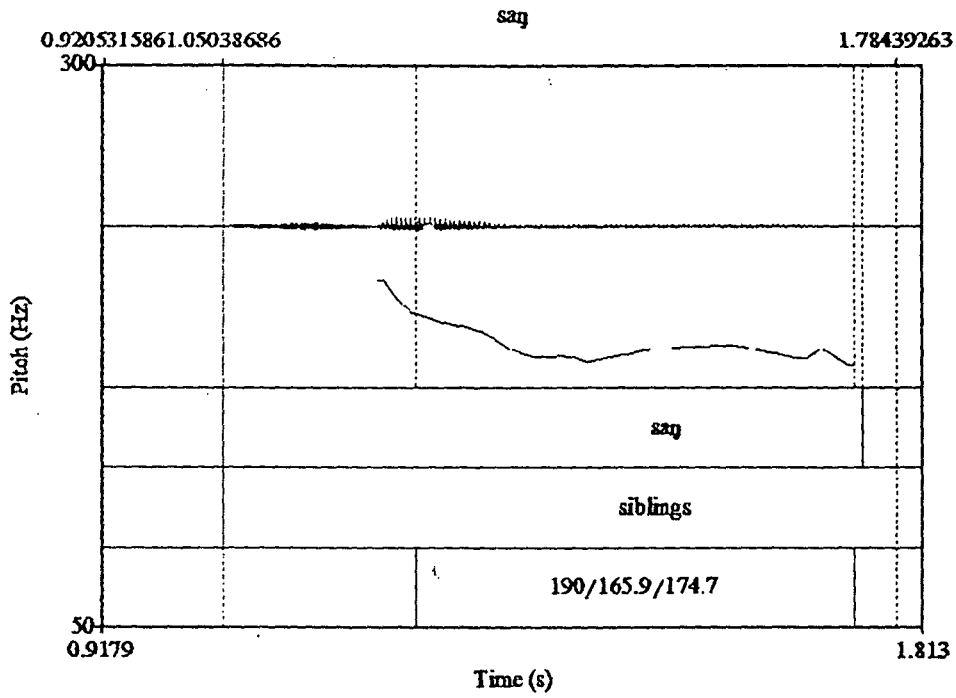

pak
1.04629592
1.09312817
1.2582237
300
50
Pitch (Hz)
pak
pungent
186.2/172.3/180.5
1
1.283
Time (s)

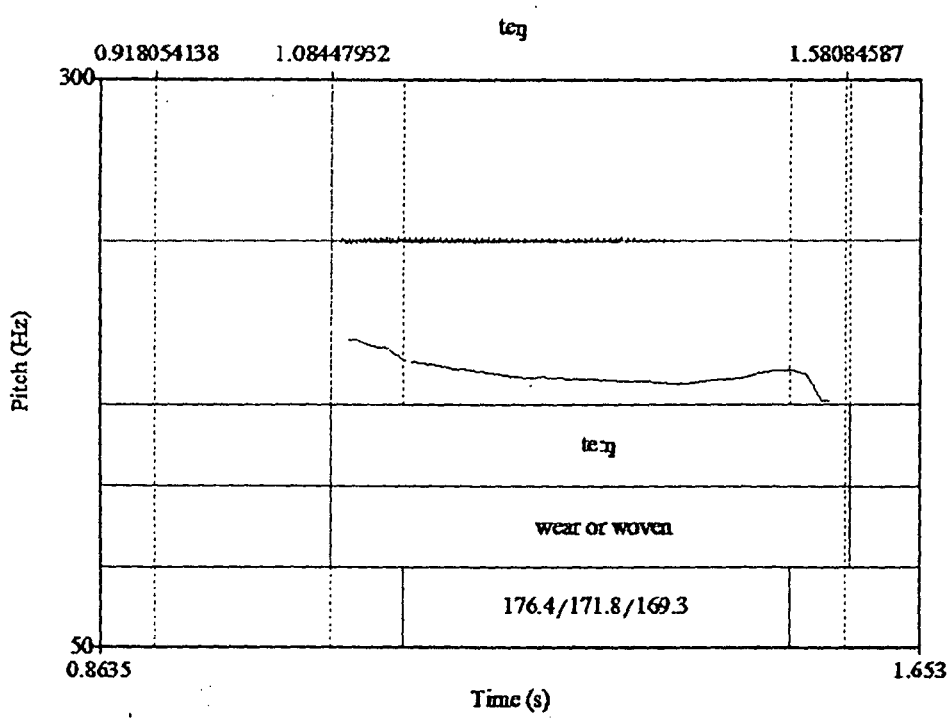

pak
0.79609785
1.04179187
1.46358492
300
50
Pitch (Hz)
pak
flower
167.5/163.2/161.1
Time (s)

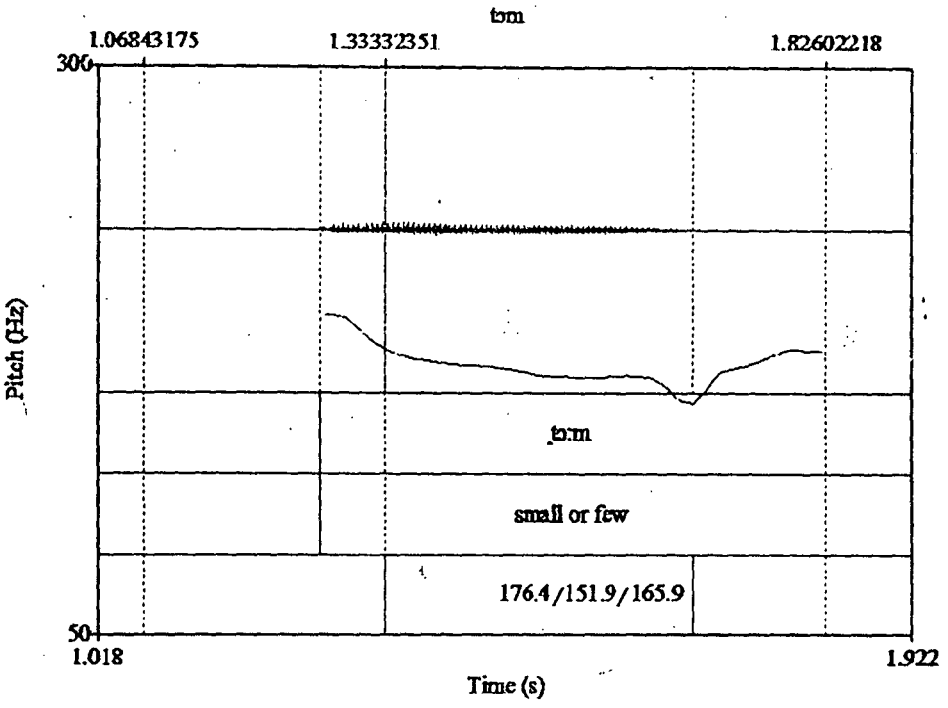

tai
0.897568406
1.07664074
1.5694478
300
50
Pitch (Hz)
tai
satisfy
174.1/162.7/163.5
0.8335
1.689
Time (s)

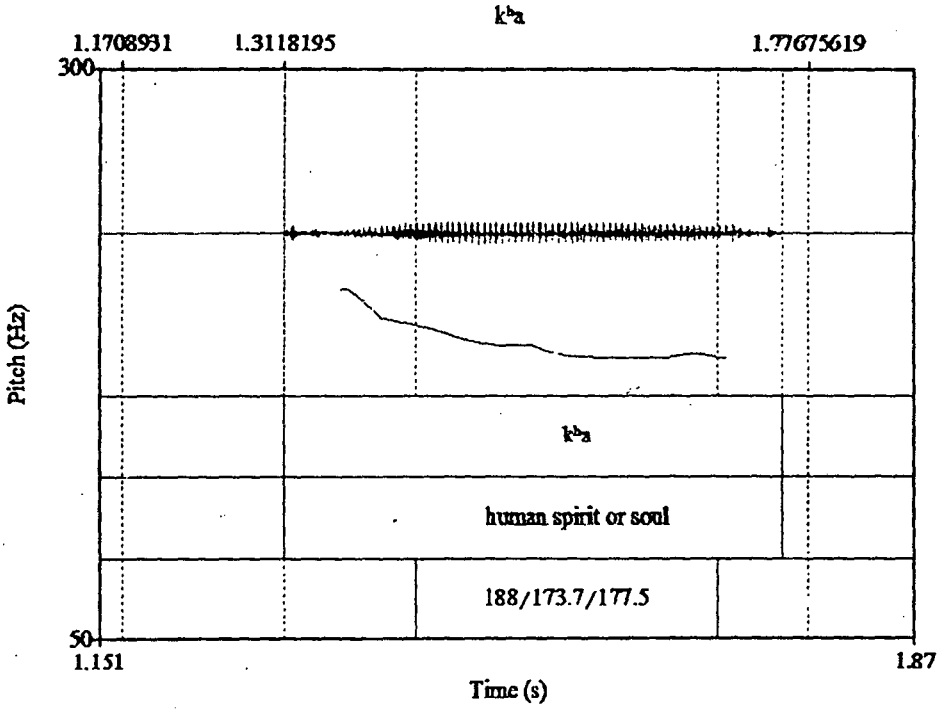

tum
0.790499446
1.0379705
1.54628941
300
50
Pitch (Hz)
tum
sinking
181/172/170
0.7581
1.557
Time (s)


man
0.90094781
1.05398782
1.77249433
300
50
Pitch (Hz)
man
sticky or imprison
182.7/174.5/178.1
0.8748
1.837
Time (s)


saŋ
0.9205315861.05038686
1.78439263
300
Pitch (Hz)
saŋ
siblings
190/165.9/174.7
50
0.9179
1.813
Time (s)


teŋ
0.918054138
1.08447932
1.58084587
300
Pitch (Hz)
teːŋ
wear or woven
176.4/171.8/169.3
50
0.8635
1.653
Time (s)

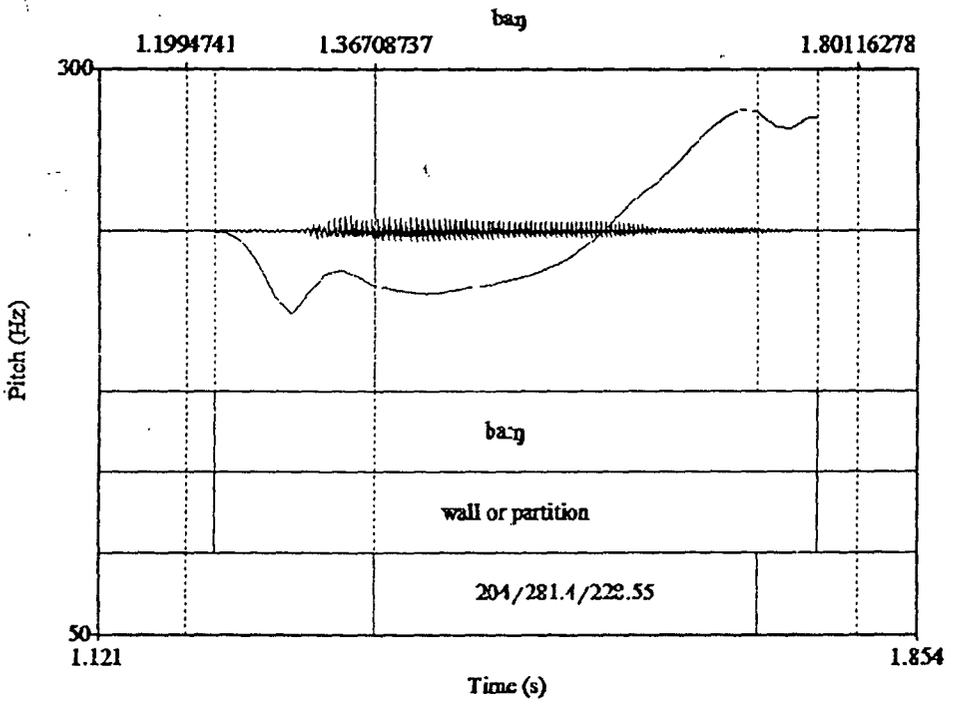

tɔm
1.06843175
1.33332351
1.82602218
300
50
Pitch (Hz)
tɔm
small or few
176.4/151.9/165.9
1.018
1.922
Time (s)

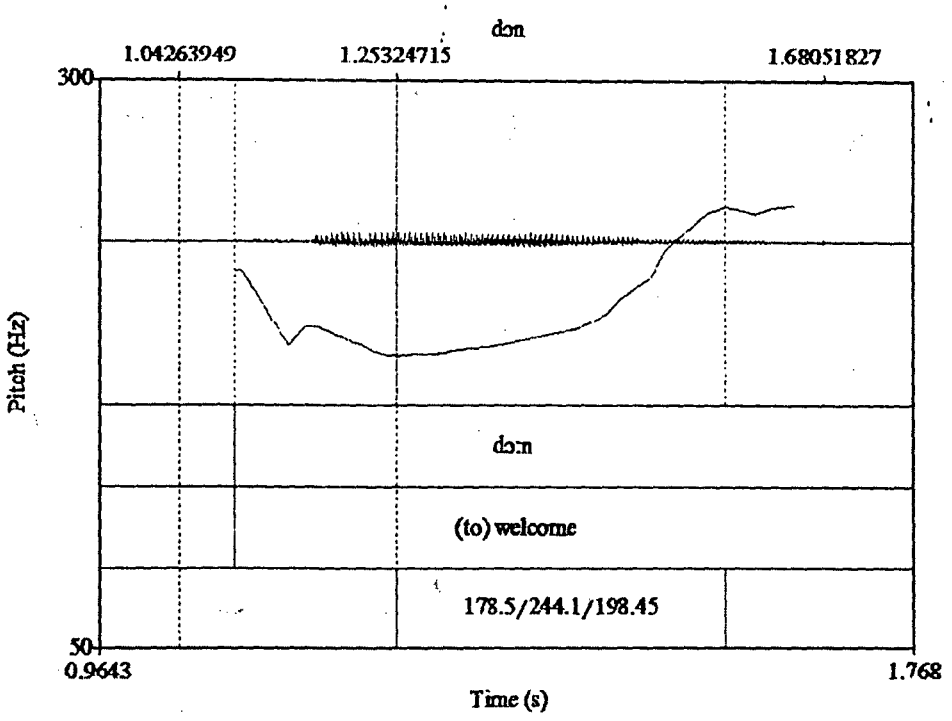

kʰa
1.1708931
1.3118195
1.77675619
300
50
Pitch (Hz)
kʰa
human spirit or soul
188/173.7/171.5
1.151
1.87
Time (s)

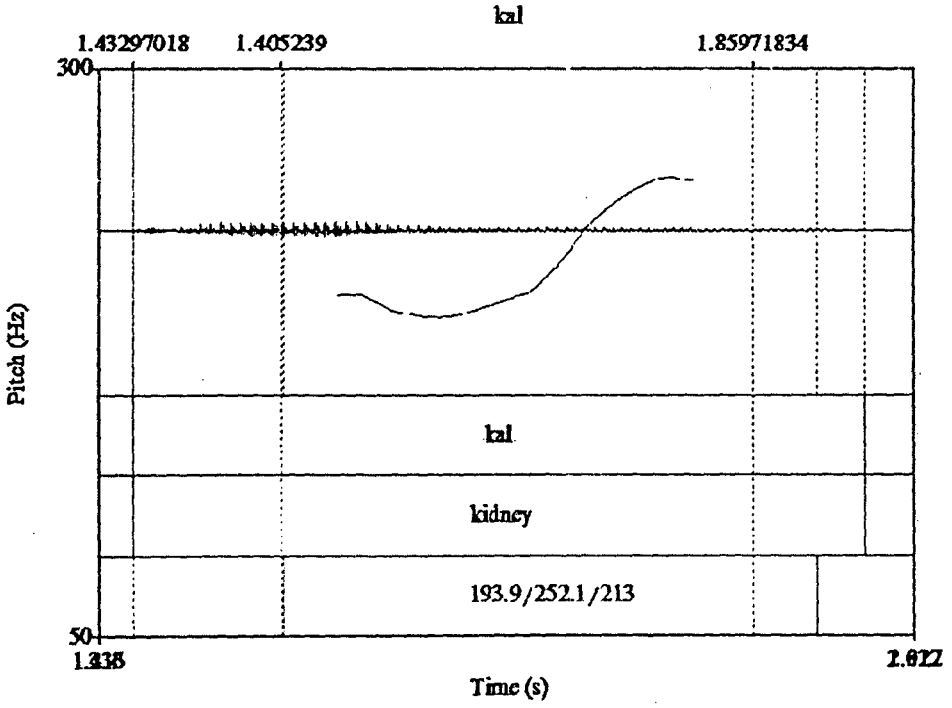
APPENDIX – IV

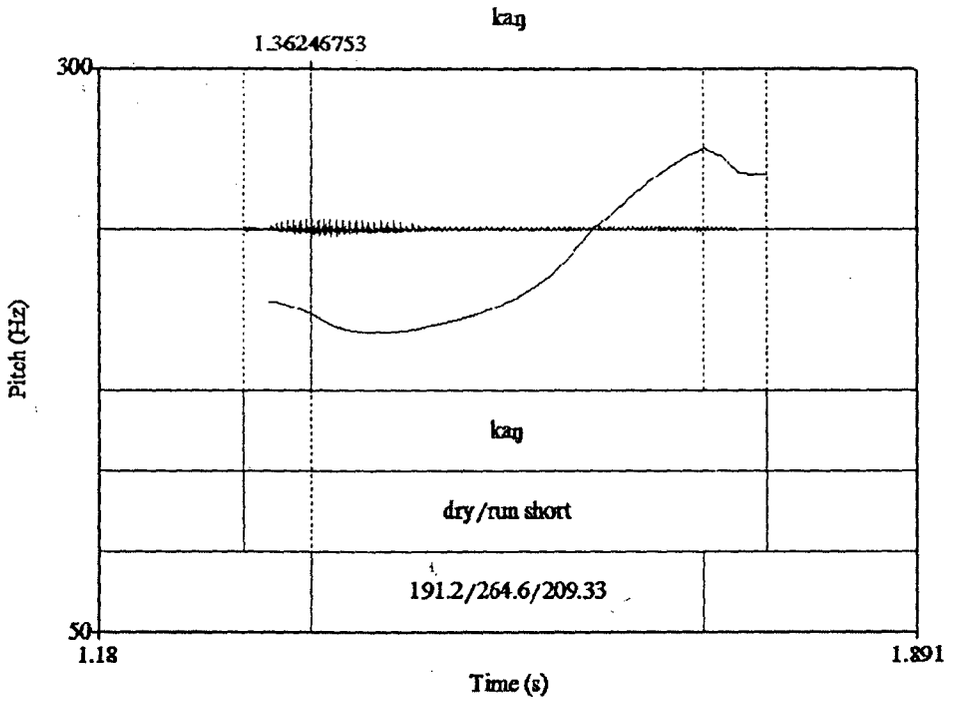
Figures of contour tones of Paite

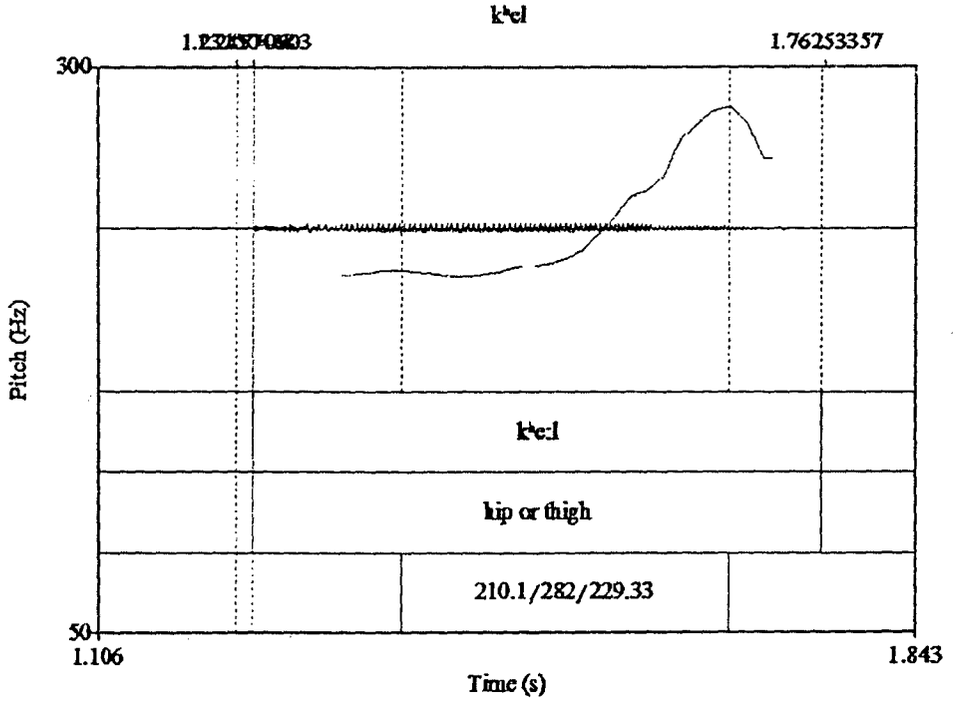
CT – 1

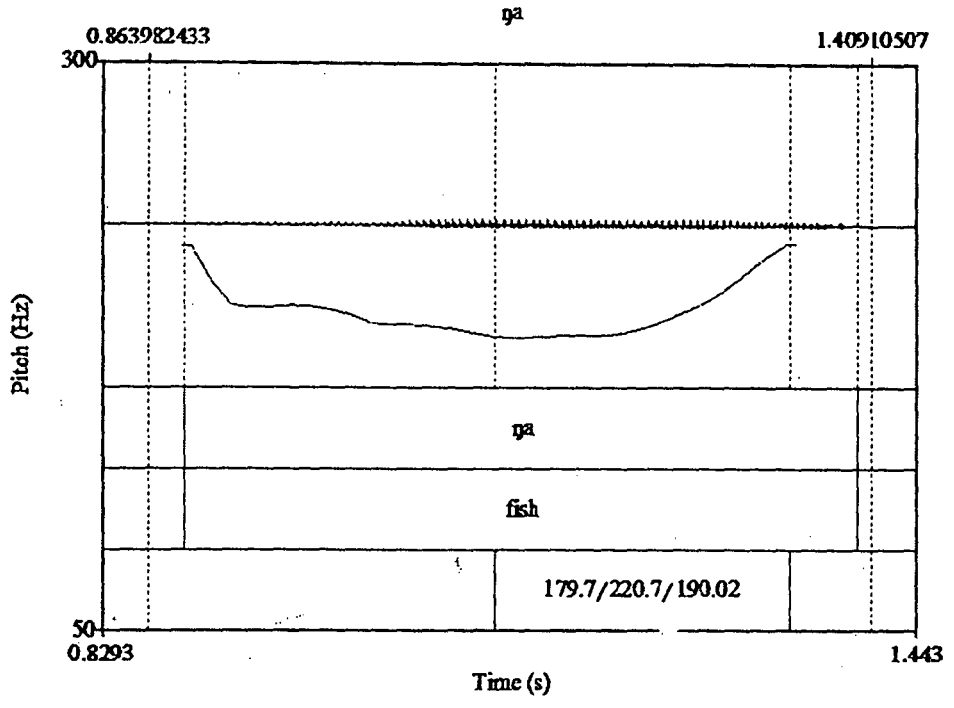


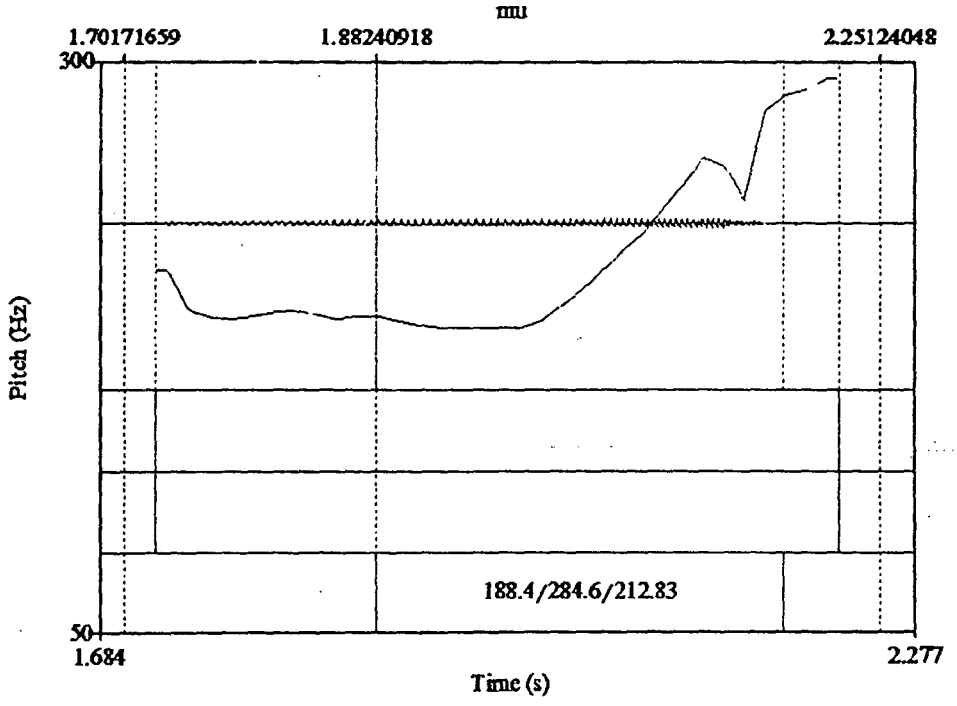

don
1.04263949
1.25324715
1.68051827
300
50
Pitch (Hz)
don
(to) welcome
178.5/244.1/198.45
0.9643
1.768
Time (s)

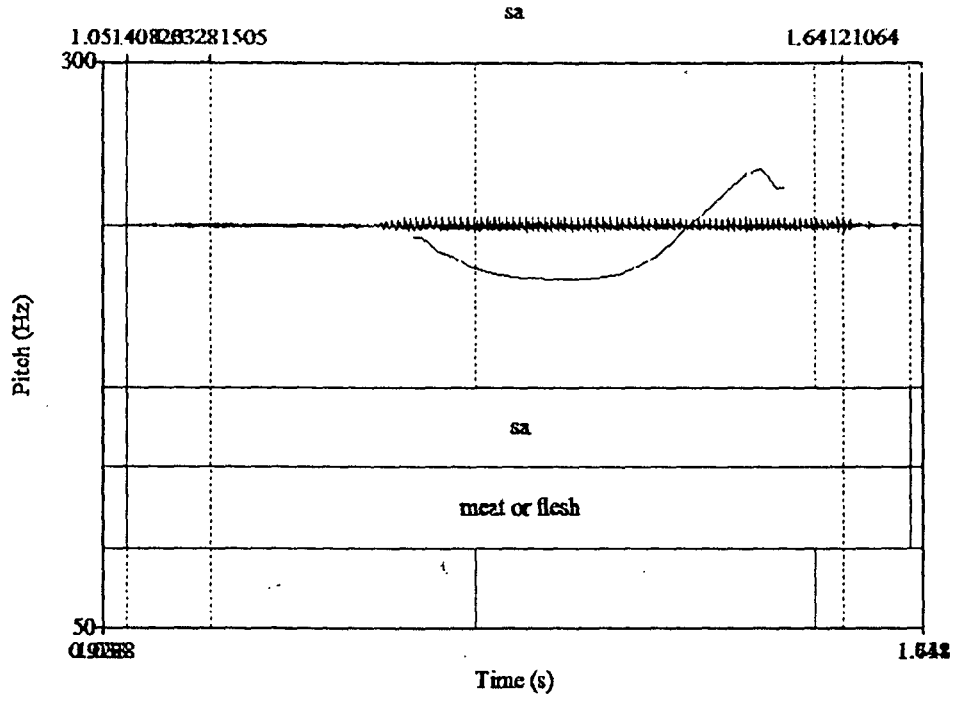

kal
1.43297018
1.405239
1.85971834
300
50
Pitch (Hz)
kal
kidney
193.9/252.1/213
Time (s)

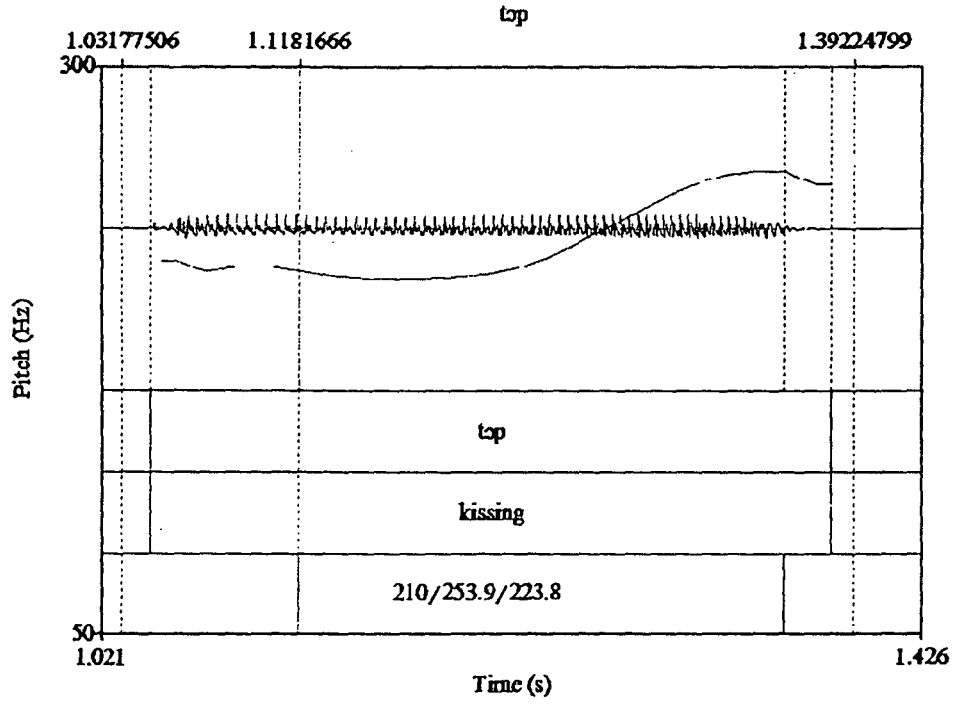

kaŋ
1.36246753
300
50
Pitch (Hz)
kaŋ
dry/run short
191.2/264.6/209.33
1.18
1.891
Time (s)

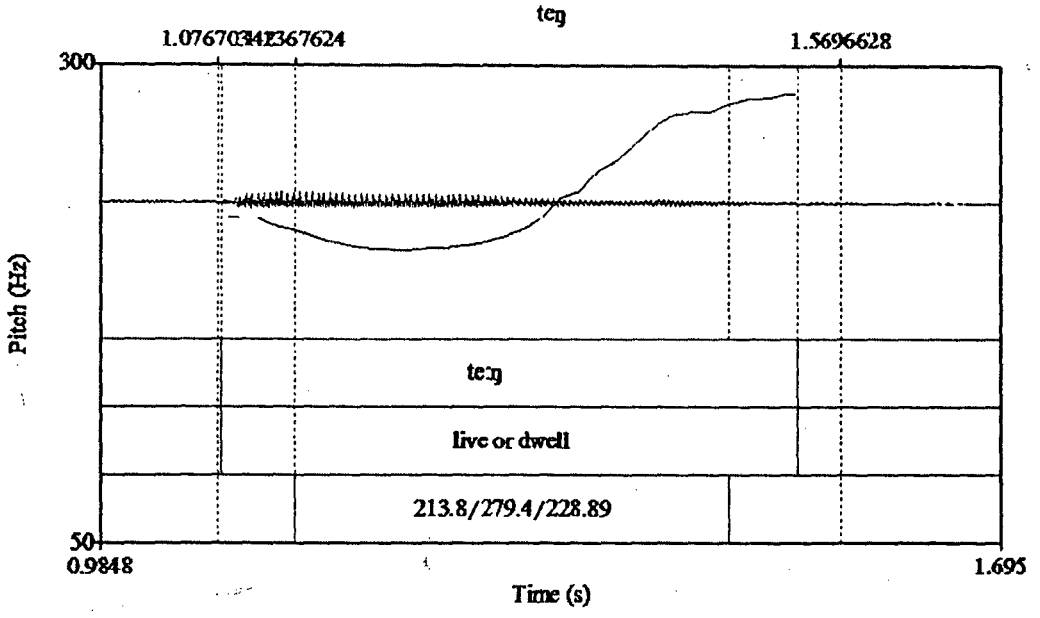

kʰɛl
1.76253357
300
50
Pitch (Hz)
kʰɛ:l
hip or thigh
210.1/282/229.33
1.106
1.843
Time (s)

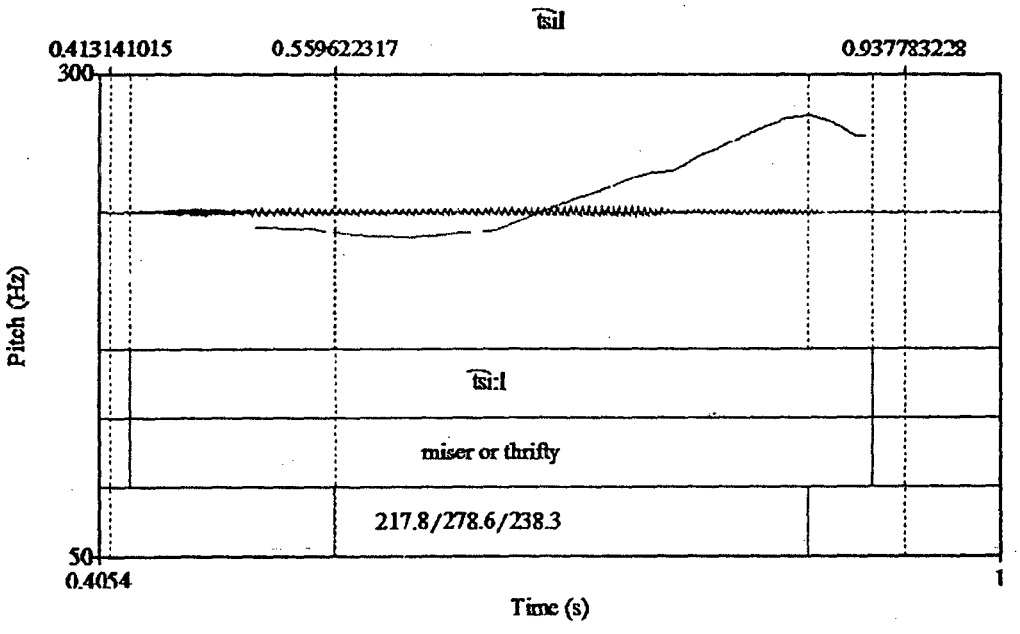

ŋa
0.863982433
1.40910507
300
50
Pitch (Hz)
ŋa
fish
179.7/220.7/190.02
0.8293
1.443
Time (s)

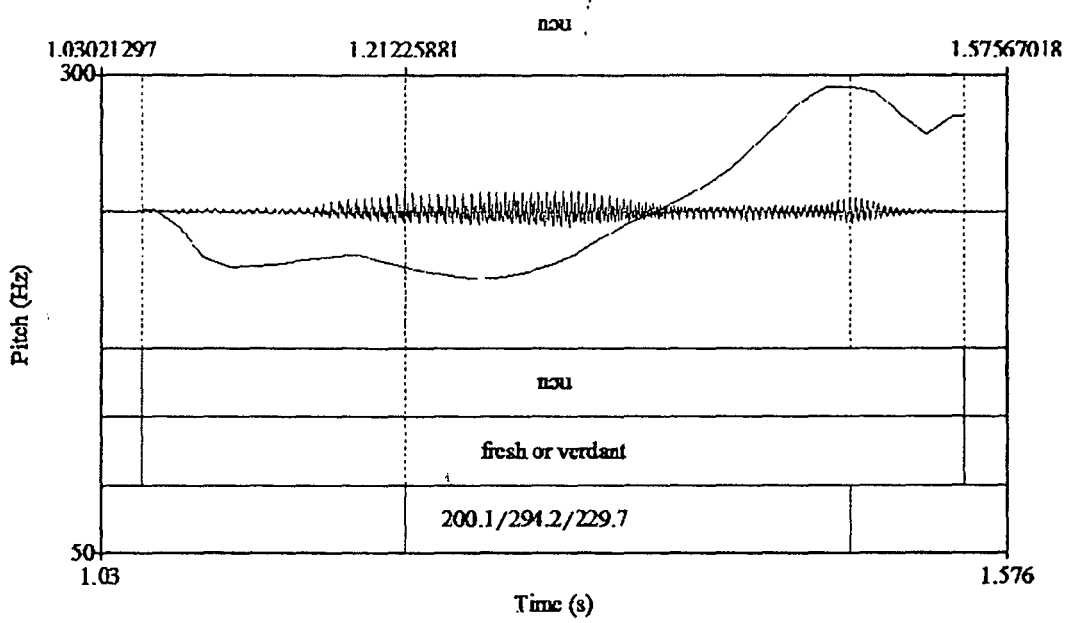

mu
1.70171659
1.88240918
2.25124048
300
50
Pitch (Hz)
188.4/284.6/212.83
1.684
2.277
Time (s)

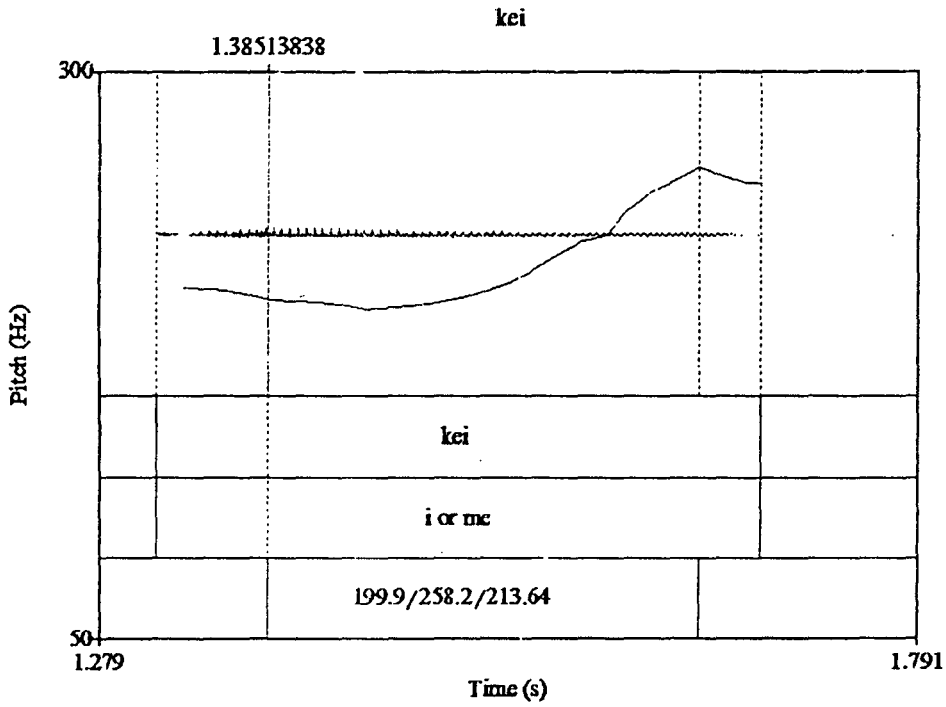

sa
1.051408283281505
1.64121064
300
Pitch (Hz)
sa
meat or flesh
50
1.642
Time (s)

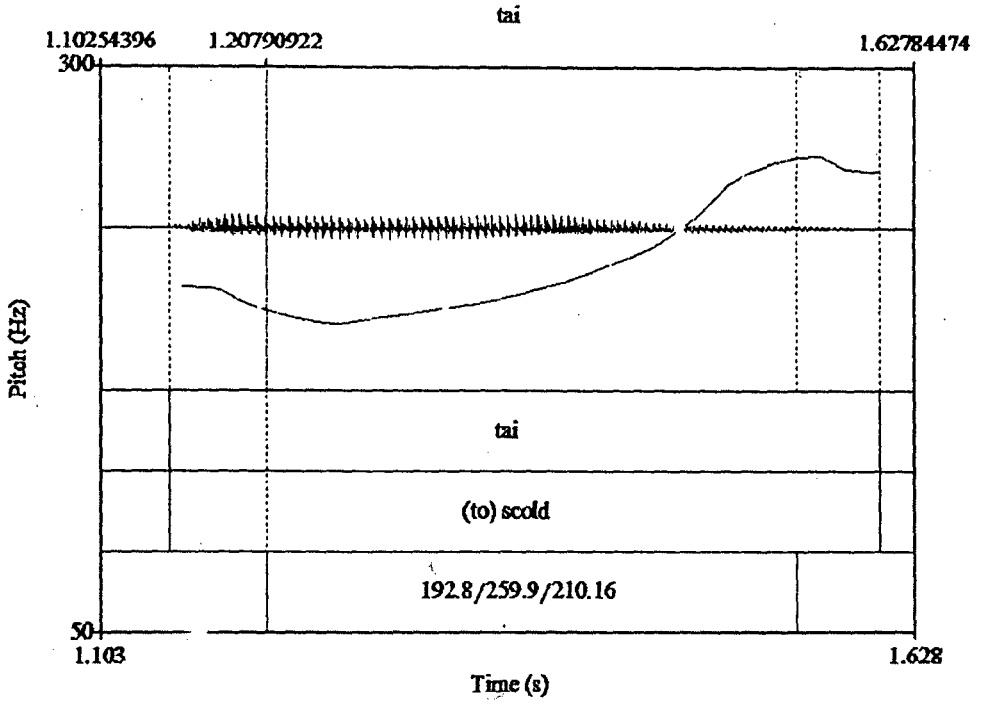

top
1.03177506
1.1181666
1.39224799
300
Pitch (Hz)
top
kissing
210/253.9/223.8
50
1.021
1.426
Time (s)

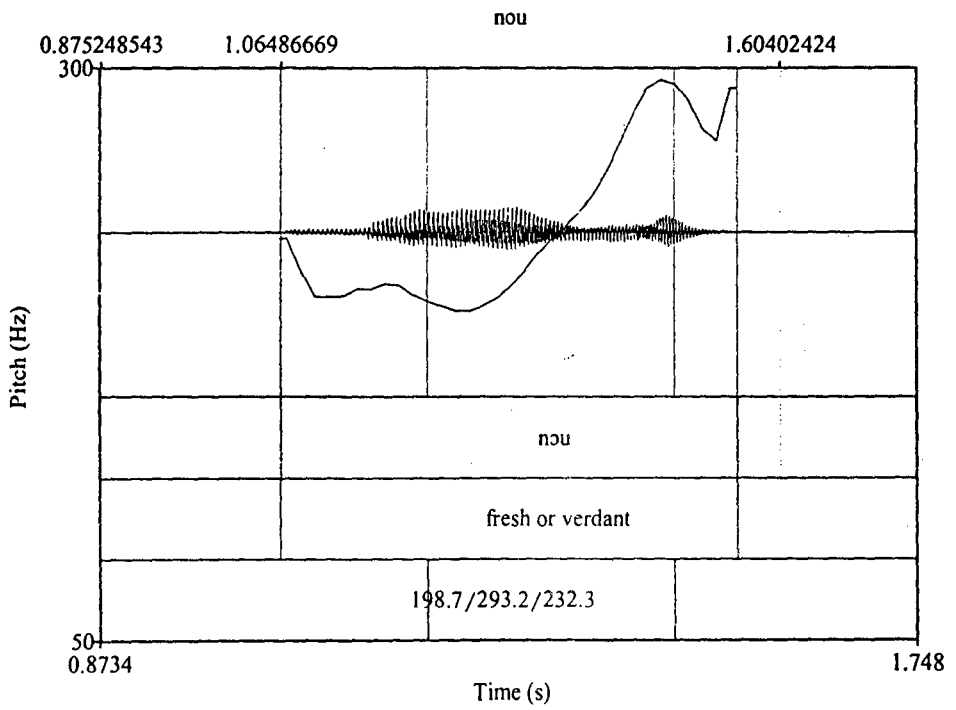

teŋ
1.0767034123 67624
1.5696628
300
50
Pitch (Hz)
teːŋ
live or dwell
213.8/279.4/228.89
0.9848
1.695
Time (s)


t͡sil
0.413141015
0.559622317
0.937783228
300
50
Pitch (Hz)
t͡siːl
miser or thrifty
217.8/278.6/238.3
0.4054
1
Time (s)

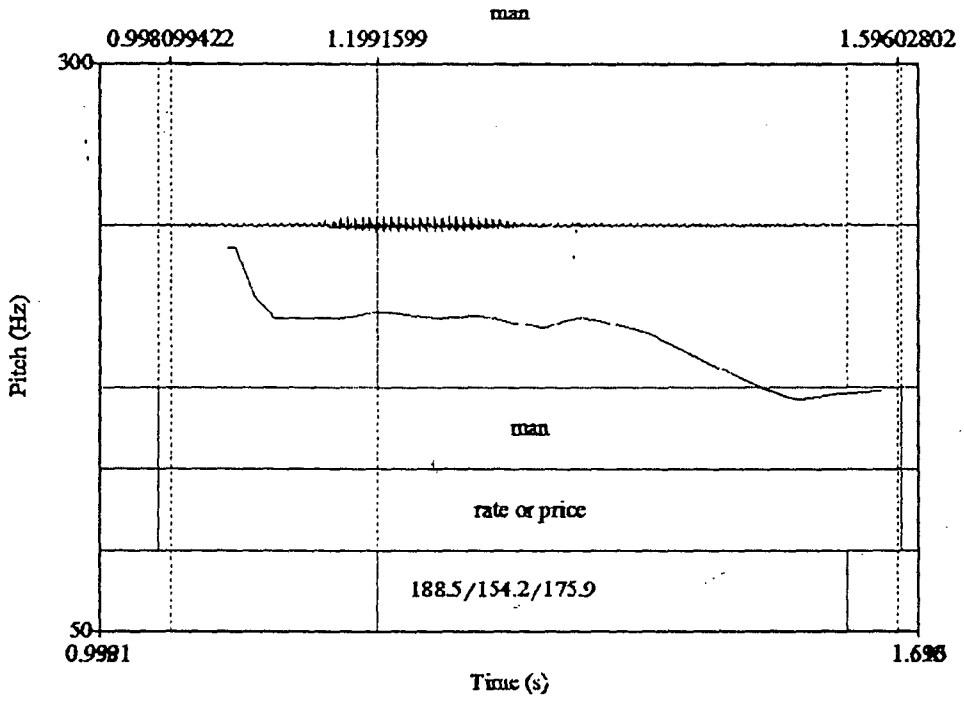

nɔu
1.03021297
1.21225881
1.57567018
300
50
Pitch (Hz)
nɔu
fresh or verdant
200.1/294.2/229.7
1.03
1.576
Time (s)

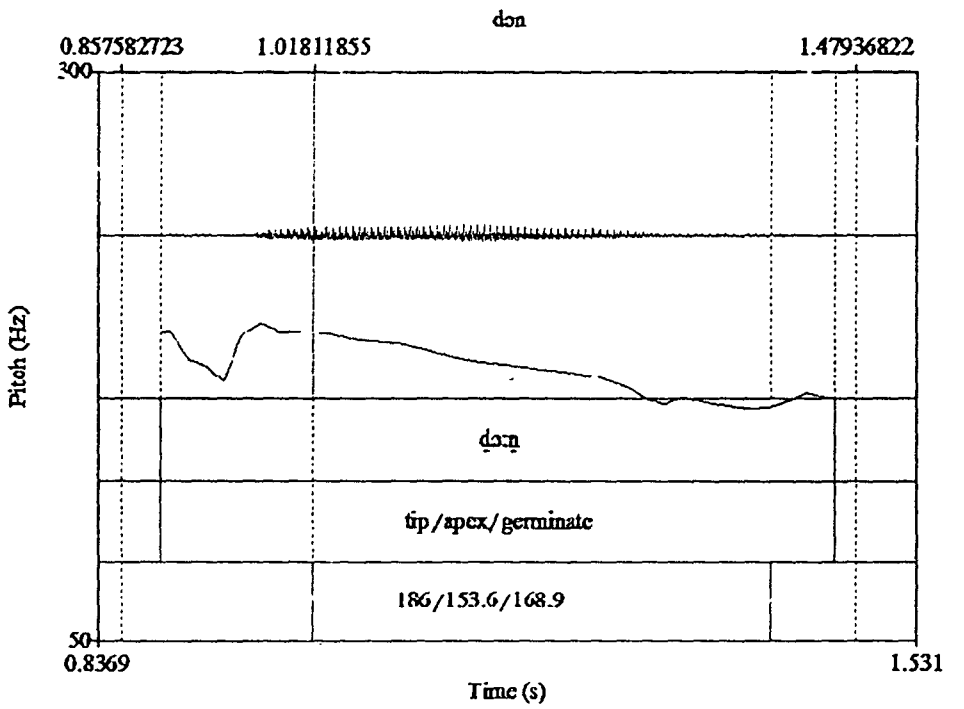

kei
1.38513838
300
50
Pitch (Hz)
kei
i or me
199.9/258.2/213.64
1.279
1.791
Time (s)

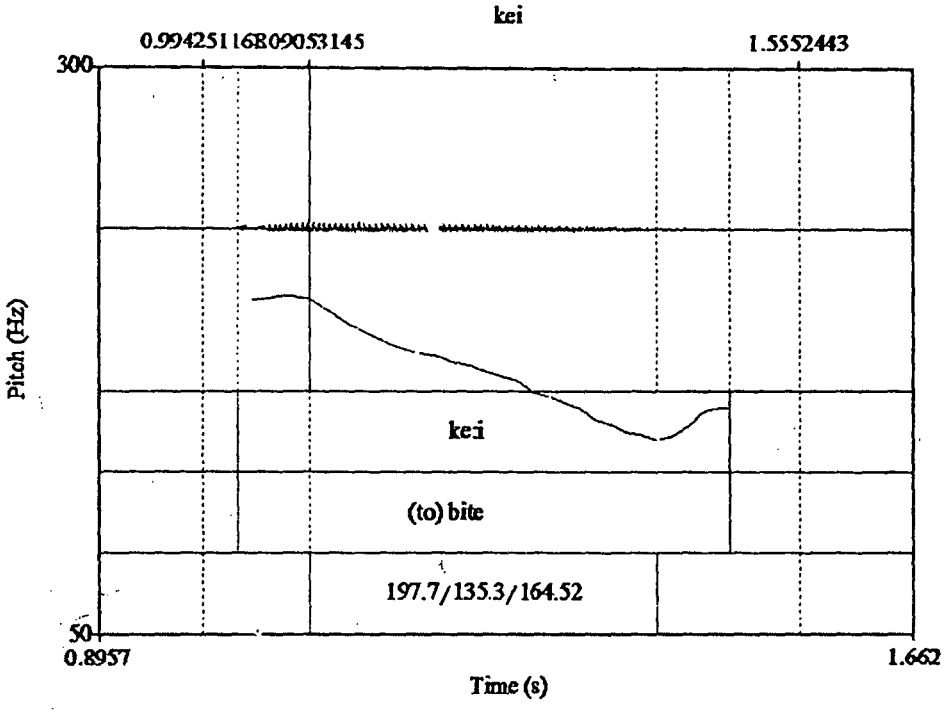

tai
1.10254396
1.20790922
1.62784474
300
50
Pitch (Hz)
tai
(to) scold
192.8/259.9/210.16
1.103
1.628
Time (s)

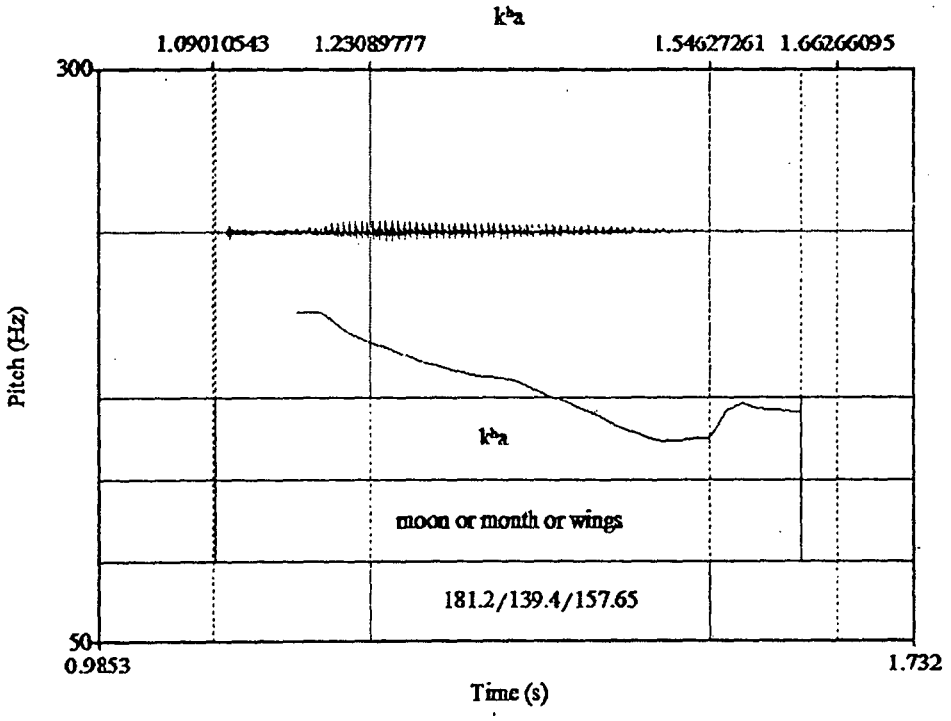

nou
0.875248543
1.06486669
1.60402424
300
50
Pitch (Hz)
nɔu
fresh or verdant
198.7/293.2/232.3
0.8734
1.748
Time (s)

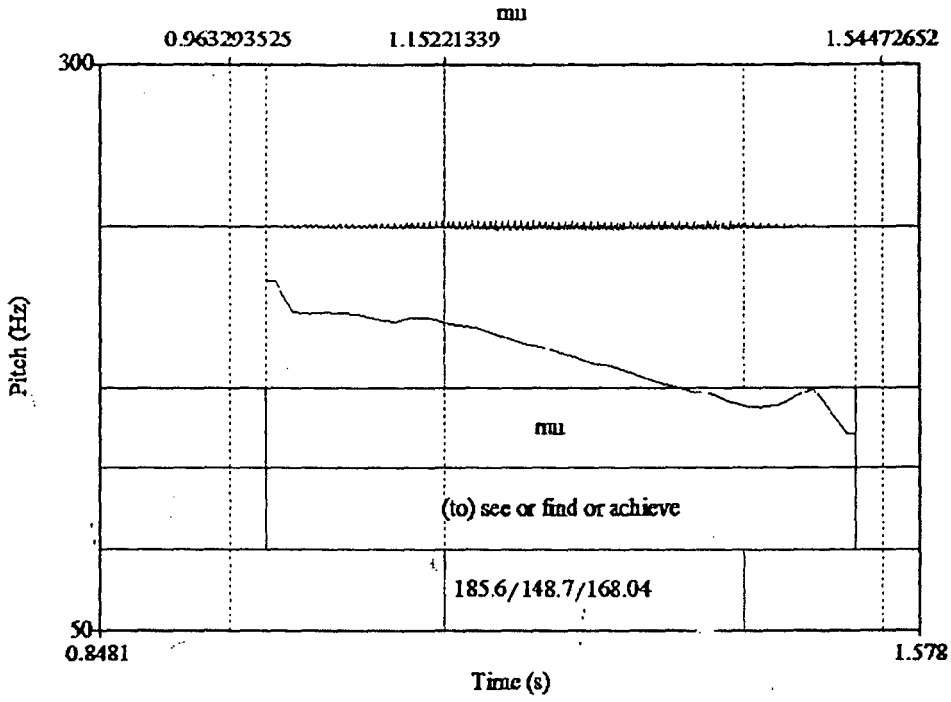
Ct -2

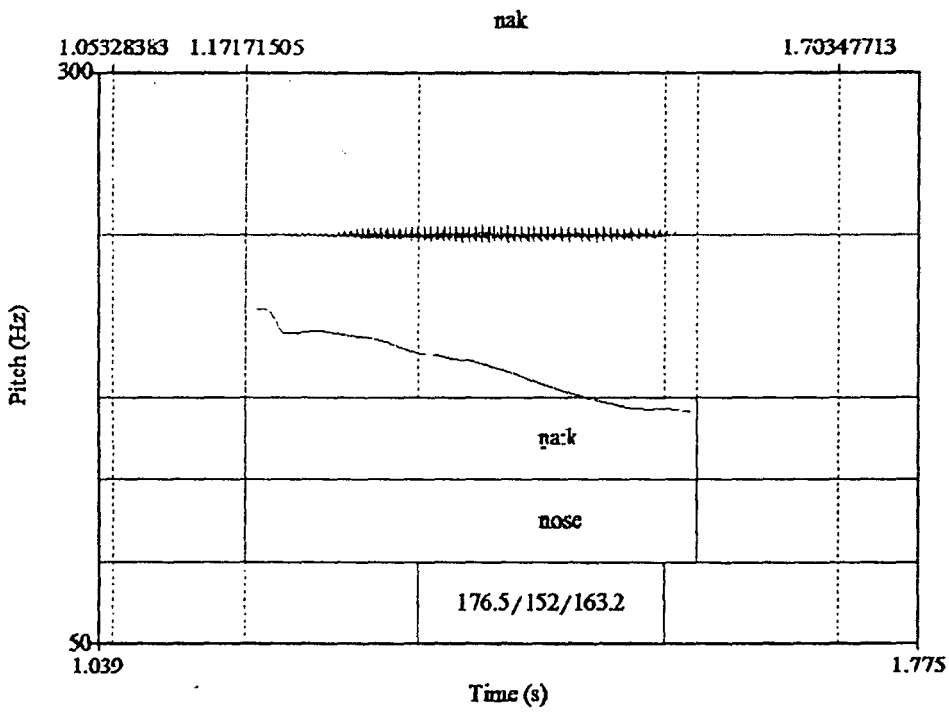

man
0.998099422
1.1991599
1.59602802
300
50
Pitch (Hz)
man
rate or price
188.5/154.2/175.9
0.9991
1.698
Time (s)

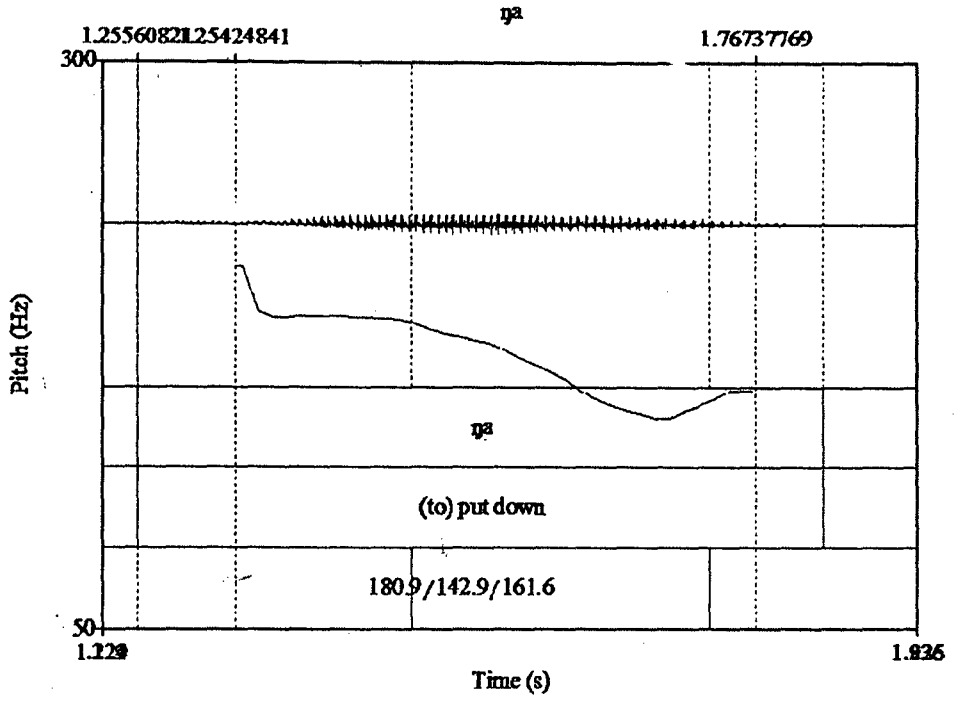

don
0.857582723
1.01811855
1.47936822
300
50
Pitch (Hz)
don
tip/apex/germinate
186/153.6/168.9
0.8369
1.531
Time (s)

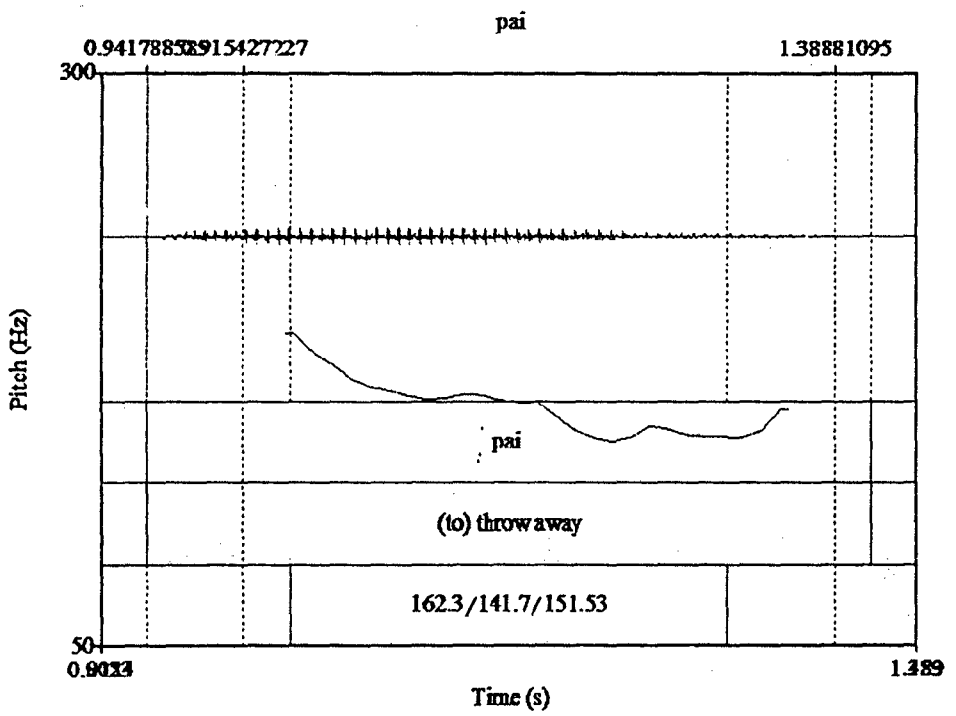

kei
0.99425116B09053145
1.5552443
300
Pitch (Hz)
kei
(to) bite
197.7/135.3/164.52
50
0.8957
1.662
Time (s)

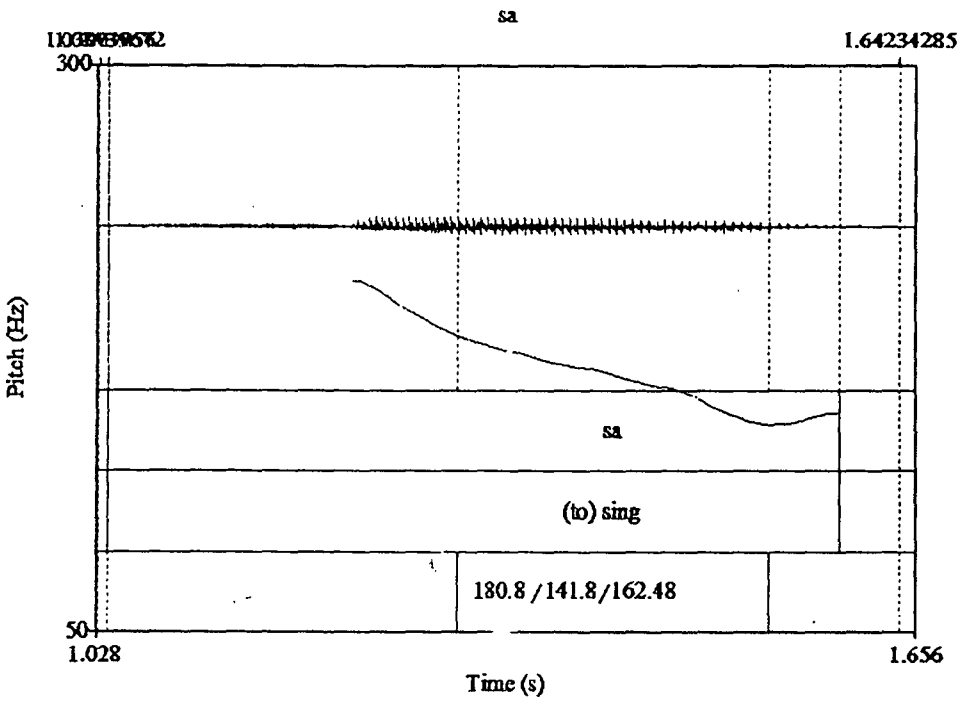

kʰa
1.09010543
1.23089777
1.54627261
1.66266095
300
Pitch (Hz)
kʰa
moon or month or wings
181.2/139.4/157.65
50
0.9853
1.732
Time (s)

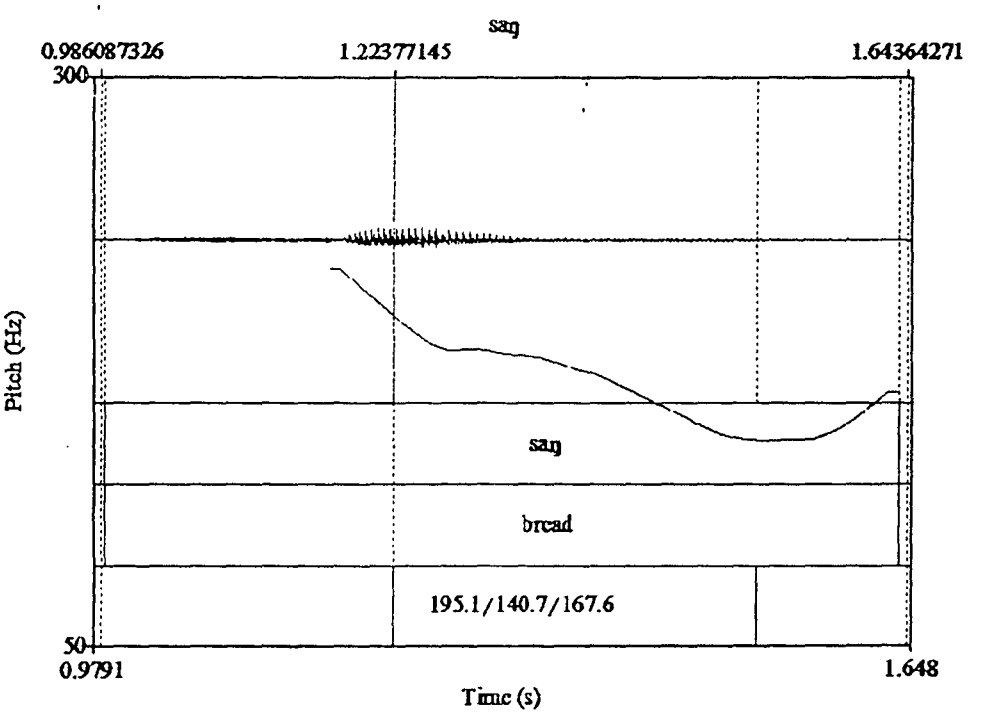

mu
0.963293525
1.15221339
1.54472652
300
50
0.8481
1.578
Pitch (Hz)
mu
(to) see or find or achieve
185.6/148.7/168.04
Time (s)

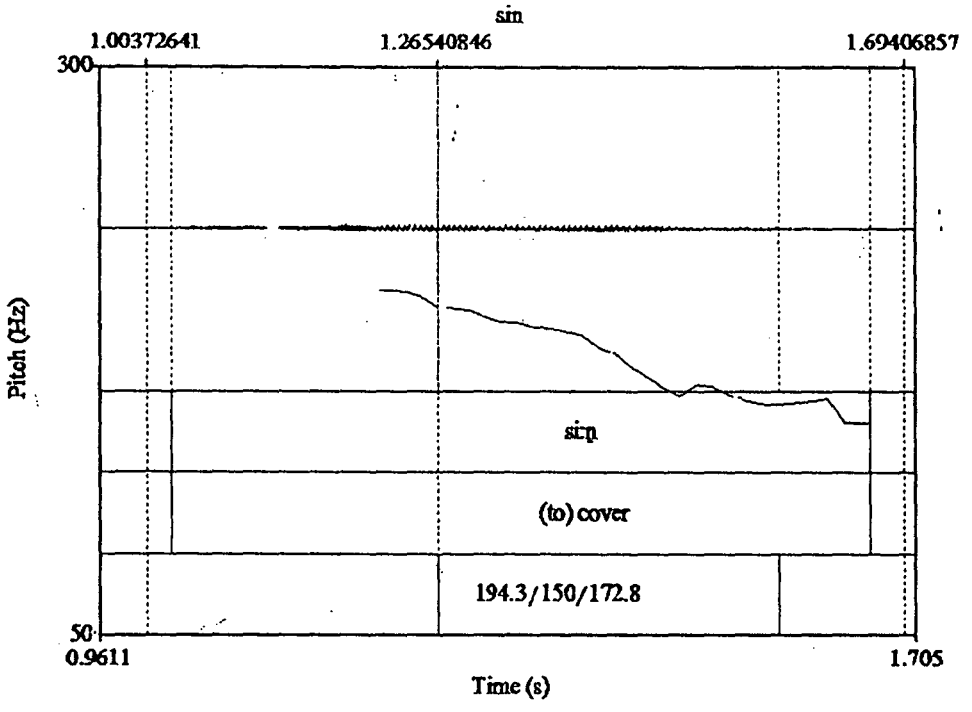

nak
1.05328383
1.17171505
1.70347713
300
50
1.039
1.775
Pitch (Hz)
nak
nose
176.5/152/163.2
Time (s)

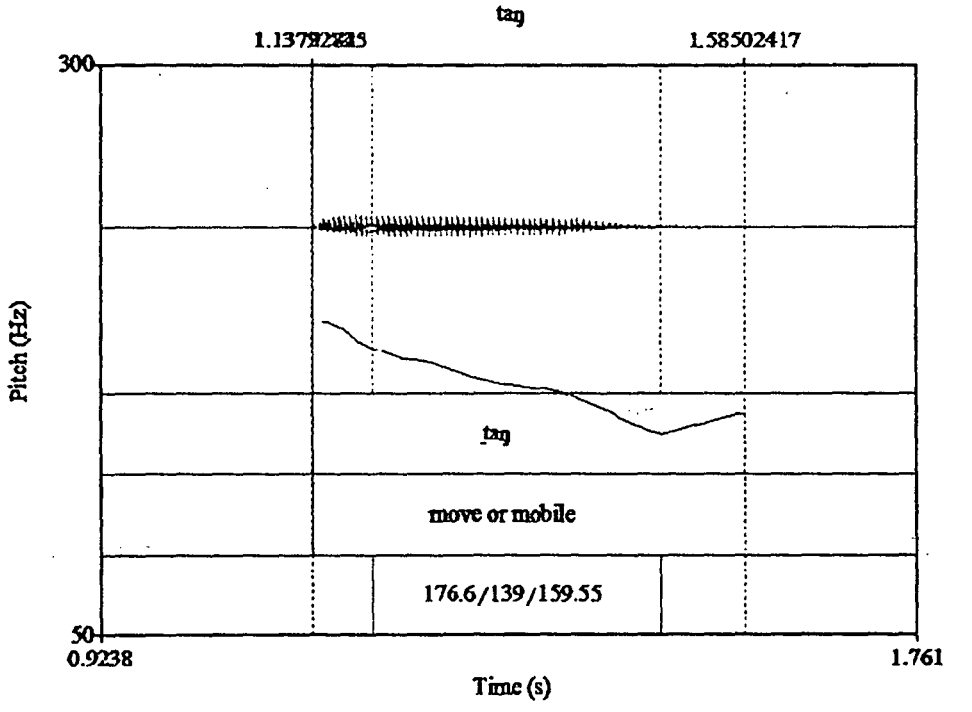

pa
1.2556082125424841
1.76737769
300
Pitch (Hz)
pa
(to) put down
180.9/142.9/161.6
50
1.229
1.926
Time (s)

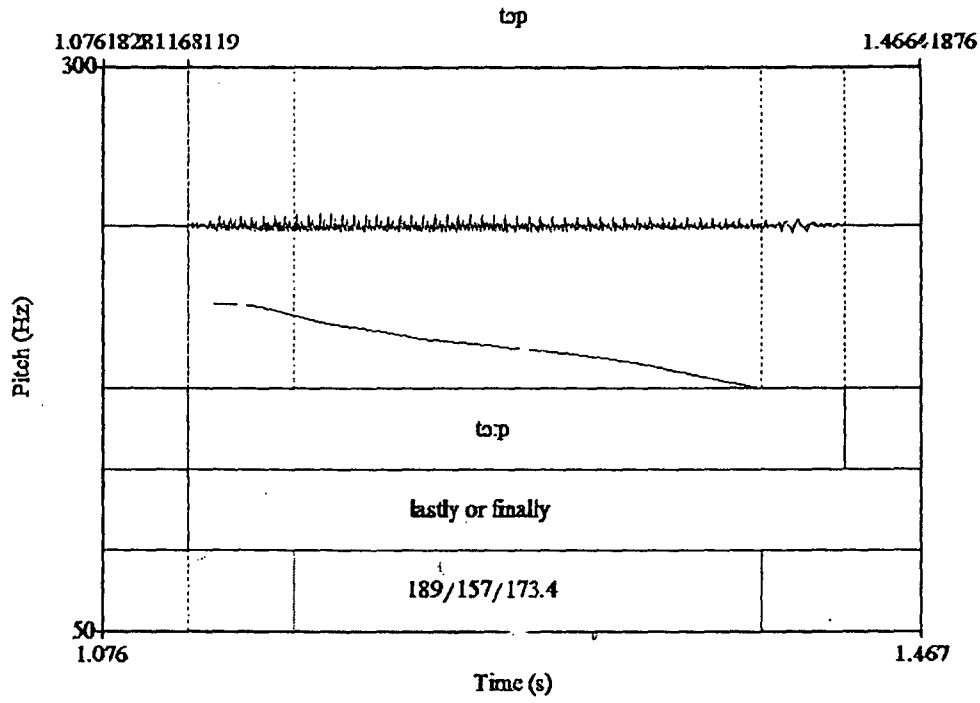

pai
0.941788528915427227
1.38881095
300
Pitch (Hz)
pai
(to) throw away
162.3/141.7/151.53
50
0.9024
1.389
Time (s)

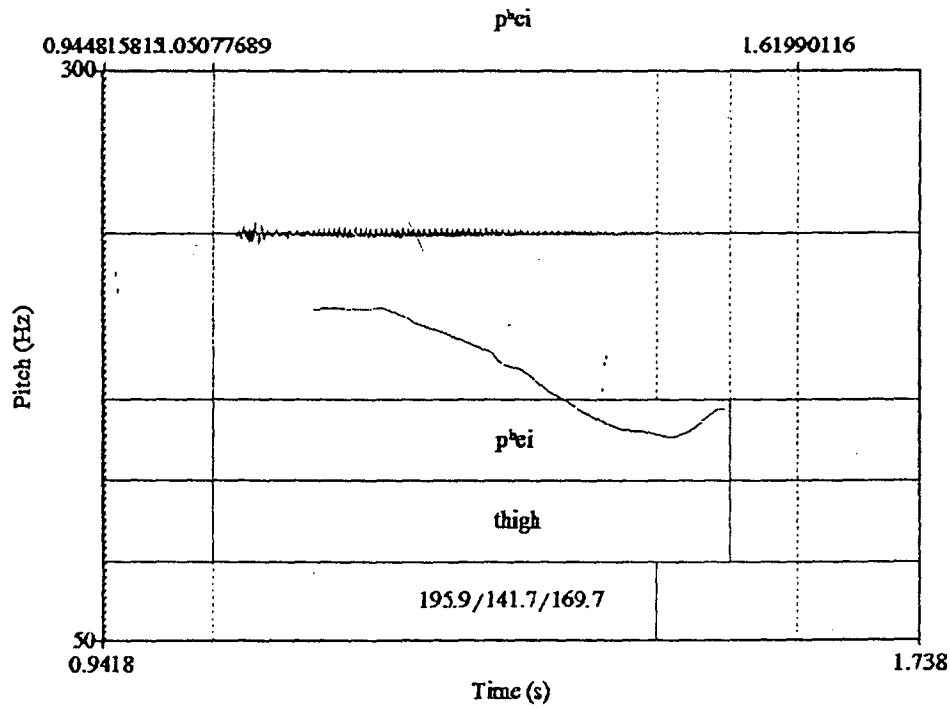

sa
1.64234285
300
Pitch (Hz)
sa
(to) sing
180.8 / 141.8 / 162.48
50
1.028
1.656
Time (s)

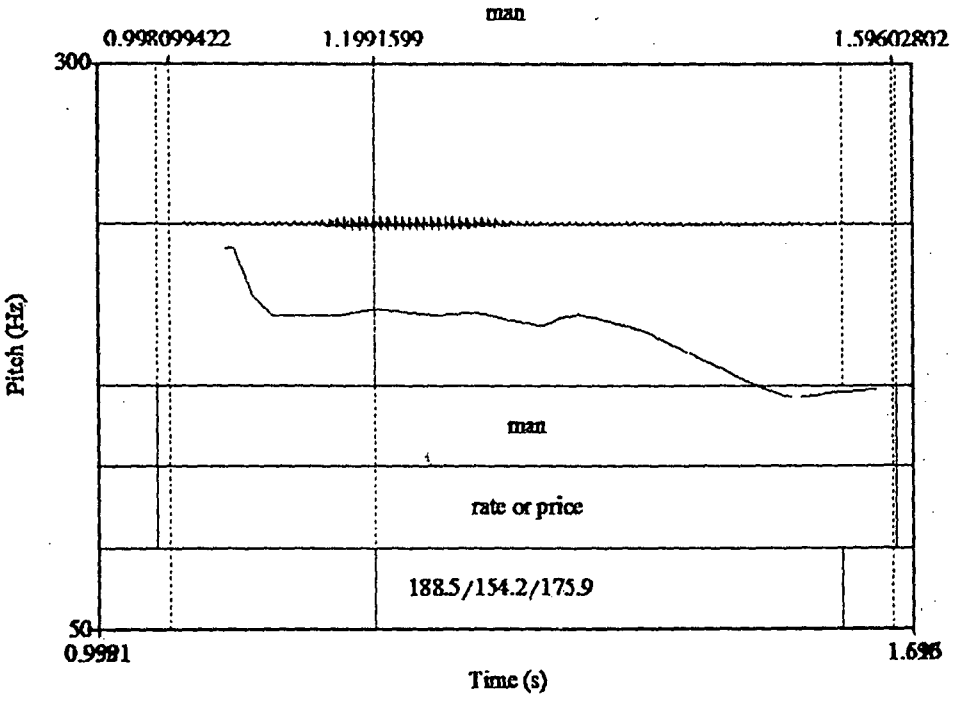

sag
0.986087326
1.22377145
1.64364271
300
Pitch (Hz)
sag
bread
195.1 / 140.7 / 167.6
50
0.9791
1.648
Time (s)


sin
1.00372641
1.26540846
1.69406857
300
50
Pitch (Hz)
sin
(to) cover
194.3/150/172.8
0.9611
1.705
Time (s)


tag
1.58502417
300
50
Pitch (Hz)
tag
move or mobile
176.6/139/159.55
0.9238
1.761
Time (s)


tɔp
1.0761828
1.1681119
1.4664187
6
300
Pitch (Hz)
tɔp
lastly or finally
189/157/173.4
50
1.076
1.467
Time (s)


pʰei
0.9448158
1.0507768
9
1.6199011
6
300
Pitch (Hz)
pʰei
thigh
195.9/141.7/169.7
50
0.9418
1.738
Time (s)


man
0.998099422
1.1991599
1.59602802
300
50
Pitch (Hz)
man
rate or price
188.5/154.2/175.9
0.9981
1.695
Time (s)