SEGMENTAL PHONEME ANALYSIS OF THE HALBI DIALECT

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Introduction

Halbi is the *lingua franca* spoken by tribal peoples in Bastar District, Madhya Pradesh, India. This article presents a tagmemic-based analysis of the segmental phonemes of the Halbi dialect as spoken in the village of Bhatpal, near Bastar village.[1]

Since some field work has been done in Halbi using other theoretical bases, the present article should be of interest both as an example of method and as an exposition of the dialect spoken in this particular area.

Halbi Syllable Structure

A syllable consists of a nucleus (N) and an optional onset (O) and/or coda (Co),
/S = ±O +N ±Co /.
Generally speaking, the nucleus is filled by any vowel (V), /N:V/; the onset is filled by any consonant (C) or a cluster of stop (C2) plus /h/, /O:C/C2h/; the coda is filled by any consonant, /Co:C/.[2]

There are a few vowels and consonant combinations which have not been observed in the present data, but which we expect to find in future data. There are six syllable types: CV, CVC, V, CCV, CCVC, VC.

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[1] The authors have lived in the village of Bhatpal during the period March to December, 1967, in order to carry out linguistic research in Halbi. The research has been undertaken in accordance with an agreement signed by the Summer Institute of Linguistics and Deccan College Post-Graduate and Research Institute, Poona, Maharashtra, to carry out linguistic research among some of the lesser-known languages and dialects of India, and in accordance with a pending agreement with the Tribal Welfare Department of Madhya Pradesh. The research is continuing in the same location, with an additional emphasis on grammatical analysis. Later, dialect survey will be made to insure that the data are representative of the entire language area.

[2] There are a few words in the data which do not fit into the Halbi phonemic pattern in which the code of a syllable is filled by a single consonant. Halbi speakers in the village of Bhatpal are directly influenced by Hindi. Evidently when they are conscious of a direct borrowing of Hindi words in which consonant clusters do occur in the coda of a syllable, they tend to retain this Hindi patterning, though such combinations may not be found in their own phonemic patterning. Examples of such words: /budhwar/ 'Wednesday', /əytwar/ 'Sunday', /rəkhwar/ 'guard'. (Note: In this analysis stop plus /h/ is interpreted as a consonant cluster rather than a unit phoneme of aspirated stop. This interpretation is discussed in the section, Distribution of Consonants.

Vowels

Contrastive Chart of Vowel Phonemes

	front	central	back
Oral			
high	i	ə	u
low	e	a	o
Nasalised			
high	ĩ	ə̃	ũ
low	ẽ	ã	õ

Description of Vowel Phonemes

There are six oral vowels and their nasalised counterparts. Front and central vowels are unrounded; back vowels are rounded.

The front vowels freely fluctuate between close and open positions word initially and medially except contiguous to another vowel: [i]~[ɪ], [e]~[ɛ]. Examples of front vowels:

/i/ /sir/ 'blood vessel' [sir]~[sɪr], /ai/ 'grandmother', /siani/ 'old woman'

/ĩ/ /sĩaɽi kolea/ 'jackal'

/e/ /ser/ 'tiger' [ser]~[sɛr], /d͡ʒaese/ 'he is going'

/ẽ/ /d͡ʒaẽse/ 'I am going'

The high central vowel freely fluctuates between mid and high positions: [ə]~[ɨ]. Examples of central vowels:

/ə/ /nək/ 'fingernail' [nək]~[nɨk], /kəsən/ 'how' [kəsən]~[kɨsɨn], /kəhni/ 'story' [kəhni]~[kɨhni], /dəs/ 'ten' [dəs]~[dɨs]

/ə̃/ /ɖə̃ɖ/ 'difficulty' [ɖə̃ɖ]~[ɖɨ̃ɖ]

/a/ /nak/ 'nose', /kay/ 'what', /hasa/ 'laugh (command, plural)'

/ã/ /kãy/ 'anything', /hãsa/ 'duck'

The high back vowel freely fluctuates between close and open positions word initially and medially except contiguous to another vowel: [u]~[ʊ]. Examples of back vowels:

/u/ /ləsun/ 'garlic' [ləsun]~[ləsʊn], /uʈ ghoɽa/ 'camel' [uʈ ghoɽa]~[ʊʈ ghoɽa], /nau/ 'long hair', /dui/ 'two'

/ũ/ /kuhũk/ 'to rot' [kuhũk]~[kuhõk], /bhui/ 'floor'

/o/ /kohni/ ‘elbow’, /oɽ/ ‘lip’, /bou/ ‘elder brother’s wife’

/õ/ /gõu/ ‘wheat’

Consonants

Contrastive Feature Chart of Consonant Phonemes

	bi-labial	dental	retroflexed	alveo-palatal	velar
Stops					
Voiceless	p	t	ʈ	t͡ʃ	k
Voiced	ɓ	d	ɖ	d͡ʒ	g
Continuants	front		back		
Nasal	m		n		
Vibrant	r		ɽ		
semi-vowel	w		y		
fricative	s		h		
lateral	l				

Description of Consonant Phonemes

There are two series of stops, voiceless and voiced. Stops in both series are usually unreleased word finally.

/p/ and /b/ are bilabial stops. Examples:

/peɽi/ ‘suitcase’, /gəpa/ ‘basket’

/beɽi/ ‘daughter’, /ɖəba/ ‘container’

/t/ and /d/ are dental stops, articulated by the tongue tip touching the upper teeth. Examples:

/taru/ ‘soft palate’, /hat/ ‘hand’, /tui/ ‘you (sg)’

/daru/ ‘wood’, /kãda/ ‘root vegetable’, /duno/ ‘both’, /dat/ ‘tooth’

/ʈ/ and /ɖ/ are retroflexed stops. Examples:

/ʈẽɖa/ ‘shadoof’, /maɽi/ ‘ground’, /haʈ/ ‘market’

/kãɖa/ ‘rafter’, /ɖẽga/ ‘tall’, /ɖokra/ ‘old man’

/t͡ʃ/ and /d͡ʒ/ are affricated alveo-palatal stops. Examples:

/t͡ʃui maɽi/ ‘earth for whitewashing’, /mat͡ʃi/ ‘stool’, /kat͡ʃa/ ‘unripe’, /put͡ʃuk/ ‘to ask’

/d͡ʒuna/ ‘old’, /d͡ʒõdra/ ‘corn’, /d͡ʒal/ ‘net’, /phud͡ʒuk/ ‘to worship’

/k/ and /g/ are velar stops. Examples:

/kay/ ‘what’, /kaka/ ‘father’s younger brother’, /kərea/ ‘dark colour’

/gay/ ‘cow’, /gal/ ‘cheek’, /sag/ ‘vegetable preparation’

There are six series of continuants: voiced nasals, vibrants, semi-vowels, voiced and voiceless fricatives, and voiced lateral. The nasals, vibrants, semi-vowels and fricatives are at front and back positions.

Nasals

/m/ is bilabial; /n/ is dental. Examples:

/m/ /gham/ ‘sunshine’, /mama/ ‘mother’s brother’

/n/ /nək/ ‘fingernail’, /dhan/ ‘paddy’, /naɽ/ ‘dance drama’, /nati/ ‘grandson’

Vibrants

/r/ is dental and has two freely fluctuating allophones: [ɾ]~[r]. /ɽ/ is a retroflexed flap. Examples:

/r/ /phur/ ‘flood’ [phuɾ]~[phur], /rati/ ‘night’ [ɾati]~[rati], /gar/ ‘egg’ [gaɾ]~[gar], /bari/ ‘earring’ [baɾi]~[bari]

/ɽ/ /saɽu/ ‘wife’s sister’s husband’, /baɽi/ ‘fence’, /d͡ʒuɽ/ ‘a cold’

Semi-vowels.

/w/ is a high close back rounded non-syllabic vocoid; /y/ is a high close front unrounded non-syllabic vocoid. Examples:

/w/ /naw/ ‘name’, /bãwsea/ ‘bamboo flute’

/y/ /ay/ ‘it is’, /bhõysa/ ‘buffalo’

Fricatives.

/s/ is dental, voiceless and grooved, and has a retroflexed allophone [ʂ] which occurs only before /ʈ/. /h/ is glottal and voiced. Examples:

/s/ /sək ‘throat’, /asu/ ‘tear’, /phus/ ‘lunar month, January-February’, /kusʈo/ ‘dance drama character’ [kuʂʈo]

/h/ /hat/ ‘hand’, /hərdi/ ‘tumeric’

Lateral.

/l/ is dental and has a retroflexed allophone [ɭ] which occurs only in the environment of /ʈ/. Examples:

/l/ /alu/ ‘potato’, /lat/ ‘kick’, /gal/ ‘cheek’, /ulʈa pulʈa/ ‘upside down’ [uɭʈa puɭʈa]

Consonant Co-occurrence Across Syllables

Some consonants have an allophone with [ə] release which occurs in syllable final position before a syllable initial consonant. The general patterns that have been observed are indicated in the following chart by an 'x'. Not all possible combinations are found in the present data.

	Syllable Initial Consonants →						
Syllable Final Consonants ↓	*Voiceless stops*	*Voiced stops*	*Nasals*	*Vibrants & laterals*	*back semi-vowel /w/*	*Fricative /s/*	*Fricative /h/*
voiceless stops			X	X	X		X
voiced stops			X	X			X
nasals			X	X	X		X
front vibrant /r/	X	X	X	X	X	X	X
retroflexed consonants	X	X	X	X			X
lateral /l/					X		X
front fricative /s/			X	X	X		
back fricative /h/			X	X	X	X	

In the case of /h/ the [ə] release is modified by the vowel preceding /h/, so that it sounds like that vowel. For example, /lohra/ is pronounced [loh^{o}ra] and /t͡ʃihni/ is pronounced [t͡ʃih^{i}ni].

In considering the question of transition, the vowel [ə] in the following position [CVCəCV] was open to two interpretations: as transition between certain consonants /CVC^{ə}.CV/, or as a full vowel, /CV.Cə.CV/. It was decided to interpret it as open transition, /CVC.CV/, because of the results of a psycholinguistics test, which showed that native speakers of Halbi react to the sequence [CVCəCV] as having two syllables rather than three, although in the sequence [CVCə̃CV] /ə̃/ is a full phoneme and does not pattern as open transition. Open transition is predictable between the consonants listed in the preceding chart, not only within a morpheme but also across morpheme boundaries.

For the test, three lists of words were prepared. The first list consisted of words which were definitely two-syllable words, of the shape /(C)VC.CV(C)/, e.g., /tumt͡ʃo/ 'your,pl', /belti/ 'guava', and /t͡ʃipta (gubi)/ 'cabbage'. The second list consisted of three-syllable words of the shape /CV.CV.CV(C)/ in which the vowel of the second syllable was always a vowel other than [ə], e.g., /nisani/ 'ladder', /ʈə̃gimar/ 'dhoti', /telani/ 'pot for cooking vegetables'.

The third list consisted of the words which were in question, of the shape [CVCəCV], e.g., [mẽɖəka] ‘small frog’, [mət͡ʃəri] ‘fish’, [ʈukəni] ‘small basket’.

Each speaker individually was asked to repeat slowly words from the first two lists until the distinction between the two was clear, i.e., two and three syllables. Then some of the words from the third list in question were given alternately with words of the first two lists in order to note the speaker’s reaction. The speakers reacted to words from the third list as being like those in the first list, i.e., as having two syllables, [CVCᵊCV], /CVC.CV/.

Distribution

Distribution of Vowels

When two-vowel or three-vowel clusters occur, each vowel is the nucleus of a separate syllable.

The following are examples of two-vowel clusters: /aig/ ‘fire’, /doa/ ‘medicine’, /ləbea/ ‘long green bean’, /d͡ʒiu/ ‘heart’, /t͡ʃəʈəi/ ‘bird’.

Examples of three-vowel clusters: /deuat/ ‘they will give’, /goʈheauk/ ‘to converse’, /dhoaese/ ‘he is causing to be washed’.

Two vowel sequences [ai], [oi], [əi], [au], [ou], [eu], and [ie], where [i] and [u] are phonetically non-syllabic vocoids, might have been interpreted as clusters of vowel plus consonant, /VC/ or /CV/, as clusters of two vowels, /V.V/, or as complex units, /VV/. An interpretation of these as clusters of two vowels, /V.V/, is impossible because there is a clear contrast between [au] and [a.u], [ai] and [a.i], [əi] and [ə.i], e.g., [nau] ‘name’, [na.u] ‘barber’; [ai] ‘it is’, [a.i] ‘father’s mother’. Thus, the choices of interpretation are limited to two: as clusters of vowel plus consonant, /VC/ or /CV/, or as units of /VV/.

It was decided to interpret them as clusters of vowel plus consonant, /VC/ or /CV/, where the non-syllabic vocoids, [i] and [u] are written respectively as /y/ and /w/, thus, [nau] ‘name’ would be written as /naw/ and [ai] as /ay/. Interpreting these sequences as units, /VV/, would have added seven new vowel phonemes. It is much more economical to add only two new phonemes /y/ and /w/, as posited by the interpretation chosen. The interpretation of /VC/ also applies to sequences of more than two vowels, where the second, third, or fourth vowel may be no-syllabic.

While it is generally true that any vowel may fill the nucleus of any syllable type, as stated above, one restriction has been noted. /ə/ and /ə̃/ do not occur in syllable final position when that syllable occurs word finally.

Distribution of Consonants

In syllable types CCV and CCVC, the onsets are filled by a consonant cluster of either stop plus /h/ or /k/ plus /y/.[3] It was decided to interpret the sequences of stop plus /h/ as cluster of

[3] There is only one occurrence of /ky/ found in the data: /kyebe/ ‘when’ which is an alternate form of /kebe/ ‘when’. The alternate forms are by different speakers and the reasons for the difference are to be checked. There are also a limited number of occurrences of /y/ word initially, eg, /yebe/ ‘now’ which is an alternate form of /ebe/ ‘now’. Word initial /ye/ alternates with word initial /e/ between speakers. This difference is parallel to that of /kye/ alternating with /ke/.

two phonemes /C_2/ plus /h/ rather than as single unit phonemes /C_2^h/. This was decided because this interpretation adds no new phonemes, whereas interpreting them as units would add ten new phonemes with a limited distribution: occurring only in syllable initial position. Interpreting these sequences as phonemic clusters adds a new consonant cluster pattern, which occurs only in the initial margin of a syllable. This addition of one new pattern seems more economical than positing ten new phonemes. This interpretation is to be checked by means of a psycholinguistic test.

The sequences [Vnd], [Vɳɖ], [Vɲd͡ʒ], [Vŋg], where V represents any vowel, might have been interpreted as clusters of nasalised vowel plus non-phonemic nasal transition, plus voiced stop, or as clusters of oral vowel plus nasal consonant, plus voiced stop. It was decided to interpret these clusters of nasalised vowel plus non-phonemic nasal transition plus voiced stop. This interpretation was decided upon because of the close parallel to other contrastively nasalised vowels in the language, i.e., contrastively nasalised vowels occurring in environments other than preceding voiced stops.

If these sequences had been interpreted as clusters of oral vowel plus nasal consonant, plus voiced stop, /ɳ/, /ɲ/, and /ŋ/ would have been postulated, as well as a new consonant cluster with a unique syllable final distribution. It is interesting to note that when boys in the village were having fun speaking words with the syllables interchanged, /õɖar/ 'bee' became [ɖarõ] and not [ɖaɽoɳ]; this supports the interpretation adopted here.

While it is generally true that any consonant may fill the onset and/or coda of CV, CVC, V, and VC syllable types and the coda of CCVC syllable types, as stated above, one restriction has been noted. /ɽ/ and /w/ do not occur in syllable initial position when that syllable occurs word initially.