## **ILLUSTRATIONS OF THE IPA**

# **Palula**

#### Henrik Liljegren

Department of Linguistics, Stockholm University, Sweden henrik@ling.su.se with

#### Naseem Haider

Forum for Language Initiatives, Islamabad, Pakistan naseem@fli-online.org

Palula is an Indo-Aryan language spoken by approximately 10,000 people in the southern part of Chitral District in Pakistan's North-West Frontier Province. It belongs to a group of speech varieties subsumed under the heading Shina (Morgenstierne 1941; Strand 2000–2001). The speech described here is that of Ashret Valley, one of two main dialects of Palula. The transcription is based on a recording of the speech of the second author, Naseem Haider, himself a native speaker of Palula, born in 1978; his speech is typical of Ashreti, or southern, Palula

The story of the North Wind and the Sun was translated into Palula by Sher Haider and Naseem Haider, and the orthography given here was initially approved by Anjuman-e-Taraqqi-e-Palula (the Society for the Promotion of Palula) in 2003, and further developed by a local literacy committee while setting up a mother-tongue education programme.

#### Consonants

	Bila	bial	Dei	ntal	Reti	roflex	Pal	atal	Vel	ar	Uvular	Glottal
Plosive	p	b	t	d	t	q			k	g	(q)	
Nasal		m		n		η						
Affricate			ts		ţş		tç					
Fricative	(f)		s	Z	ş	(z <sub>i</sub> )	Ç	Z	Х	γ		h
Flap				ſ		r						
Approximant		W						j				
Lateral approximant				1								

The voiceless uvular (or postvelar) plosive /q/ occurs almost exclusively in Perso-Arabic loans and is only pronounced distinctly postvelar by educated speakers – and even then inconsistently – whereas many speakers use a velar fricative pronunciation [x], thus not contrasting it with /x/. A labiodental /f/ occurs in recent loans from Urdu and English. Many Palula speakers pronounce it as [ph] rather than [f]. The word /faajdá/ 'benefit' is, for instance, realized as [pha:jdá] or [fa:jdá]. The voiced retroflex fricative /z/ is frequency-wise a marginal phoneme, but is included for the sake of completeness. The fricatives /z x y/ are relatively frequent in present-day Palula, although they are found, to a large extent, in vocabulary borrowed from other languages spoken in the region.

Many of the dental consonants are interdental. The dental plosives, for instance, are pronounced with the tip of the tongue touching the lower as well as the upper teeth, and the dental fricatives and affricates are produced with the tip of the tongue against the lower teeth, whereas the flap /r/ is produced at the alveolar ridge very close to the upper teeth.

In some descriptions of closely-related languages (Schmidt & Kohistani 2008: 16), the retroflex consonants are called 'retracted' and it is uncertain whether these consonants in the languages of the mountainous region of northern Pakistan are retroflex in the same sense or to the same extent as in the main languages of the Subcontinent or in Dravidian languages. In Palula pronunciation, the tongue is only slightly curled back and a constriction is made with the tip or the underside of the tongue in the alveolar region, but rarely further back in the oral cavity.

The palatal consonants are more precisely described as alveolo-palatal, with the blade of the tongue applied against the area covering the rear part of the alveolar and the front part of the palate, and with the tip of the tongue behind the lower teeth. They are not radically grooved.

p	píili	'drank (F)'	çópu	'navel'	tip	'drop'
b	bíidi	'many (F)'	zabál	'iron bar'	dáab	ʻplain'
f	fásil	'crop'	xafá	'upset'	maáf	'excuse'
m	míiça	'men'	hiimaál	'glacier'	bráam	'joint'
$\mathbf{W}$	wiiwaj	'wife's brother'	heewaánd	'winter'	(ghaáw	'cow')
ſ	reetí	'nights'	béeriş	'summer'	angóor	'fire'
1	léedi	'found (F)'	balíi	'roof end'	tç <sup>h</sup> aál	'goat kid'
t	téeti	'hot (F)'	p <sup>h</sup> útu	'fly'	baát	'word'
d	déedi	'father's mother'	léedi	'found (F)'	çid	'coldness'
n	néeri	'stream bed'	záanu	'person'	sóon	'pasture'
S	seetí	'looked after (CV)'	búusi	'kiss'	deés	'day'
Z	zeerí	'supplication'	baazóor	'bazaar'	angreéz	'Brit'
ts	tsiipí	'squeezed (CV)'	bútsu	'stick'	uts	'spring'
¢	çéemi	'spleen'	húuçi	'wind'	díiç	'village'
tç	tçéeri	'spouted jug'	kutçúru	'dog'	baalbátç	'child'
Z	zéeli	'bore (F)'	béezi	'heifer'	ráaz	'rope'
j	jíiṛi	'sheep'	l <sup>h</sup> áaja	'will find'	(babaáj	'apple')
t	taaká	'call!'	beetí	'lamb'	báaţ	'stone'
d	daaká	'robbery'	géedi	'big (F)'	haád	'bone'
η	_		déeηi	'calf (of leg)'	b <sup>h</sup> eéη	'sister'
r	_		déeri	'beard'	kiroór	'chest'
ş	şéeti	'disputed (F)'	k <sup>h</sup> aşíi	'hoe'	báaş	'rain'
$Z_{L}$	zamí	'sister's husband'	ţşaηzá	'torch'	ríiz	'track'
ţş	ţşiinkí	'twittered (CV)'	téeţṣi	'wood chisel'	d <sup>h</sup> ráatş	'grape'
k	katí	'how many?'	bakáara	'flock'	dóok	'back'
g	gadí	'taken out (CV)'	sígal	'sand'	p <sup>h</sup> aág	'fig'
X	xatí	'letters'	maaxaám	'evening'	mux	'face'
q	qisá	'story'	alaaqá	'area'	açáq	'love'
γ	yeerí	'caves'	kaayaáz	'paper'	baáy	'garden'
h	harí	'removed (CV)'	kuhí	'well'	_	

With respect to frequency, the voiceless plosives can be considered the unmarked subset of plosives, occurring almost twice as often as their voiced counterparts. The voiced plosives seldom occur word-finally, and when they do, they tend to be devoiced. Intervocalically, plosives can be slightly fricativized.

There are only three fully contrastive nasals – bilabial, dental and retroflex – whereas phonetically at least five places of articulation are attested. There is, for instance, insufficient proof to regard a velar nasal  $[\eta]$  as a phoneme independent from /n/, as it only occurs before the velar plosives /k/ and /g/, or as a variant pronunciation of /ng/:  $[\eta g] \sim [\eta]$ .

Affricates occur at three places of articulation, but with respect to frequency the dentals are more limited as compared to the other two. The missing voicing contrast is partly explainable by an overlap or neutralization between the affricate and fricative sets (which is also the reason why we present the affricates adjacent to the fricatives in the chart). This asymmetry within the class of affricates/fricatives seems to exist in a number of other languages in northern Pakistan (Zoller 2005: 34). There is also a less consistent neutralization of the contrast between voiceless (aspirated) dental and retroflex affricates and their voiceless fricative counterparts (not affecting the palatals), apparently limited to certain lexical items: /aaṣaát/ 'apricot' is, for instance, alternatively realized as [aɪṣɜir] and [aɪṭṣʰāir].

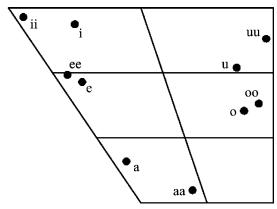
What we have chosen to describe as a voiced palatal or alveolo-palatal fricative /z/ is alternatively realized as [z] and as an affricate [dz] (often with the latter pronunciation intervocalically), whereas /z/ seems to occur consistently as [z] and never with an affricate pronunciation. As already pointed out, the voiced retroflex fricative /z/ is infrequent, occurring only in a handful of words. An even more infrequent voiced retroflex affricate [dz], possibly an allophone of /z/, has been recorded in a couple of lexical items, one of them  $[dz^{fi}$  and  $z^{fi}$  ir 'chain'.

There is a strong affinity between /h/, occurring alone in syllable onsets, and aspiration /h/ as a feature concomitant with a consonant (see section 'Aspiration and breathiness' below). Historical occurrences of word-medial /h/ through movement to syllable onsets have often been reinterpreted as (particularly voiced) aspiration in Palula. In the present language, /h/ only rarely occurs intervocalically. When it does occur in that position, an interpretational ambivalence often arises: [rahi:] 'footprints': /rhajíi/ or /rahíi/. Therefore, /h/ and /h/ can be seen as expressing one and the same suprasegmental feature.

In the speech of the second author, the front-most approximant /w/ is usually pronounced bilabially  $[\beta]$ , but with many speakers this phoneme seems to alternate between a bilabial and something close to a labiodental  $[\upsilon]$  pronunciation. The approximants /w/ and /j/ are challenging in terms of interpretation, and are in various ways susceptible to articulatory variation, especially when occurring intervocalically and word-finally. Preceded by a back vowel, the lateral approximant /l/ is being velarized, but only markedly so in the northern dialect.

The occurrence of word-initial  $/\eta$ / or  $/\tau$ / is questionable or at best marginal.  $/\tau$ / is used by some speakers word-initially in a shortened form of some of the demonstratives, where it alternates with /l/, as in  $/\tau$ 0/  $\sim$  /l0/ 'that' (from  $/\tau$ 0/) and related forms. The occurrence of word-final approximants  $/\tau$ 0/ and  $/\tau$ 1/ is a matter of interpretation (as indicated by the parentheses).

## **Vowels**



Phonologically, Palula has a ten-vowel system comprising five basic qualities, each having a short and a long counterpart (here written with a single vowel symbol and a double-written vowel symbol, respectively, to facilitate the marking of moraic accent).

The chart represents target articulations of the vowels, all of which take on more centralized qualities in natural and connected speech. The short vowels /i/, /a/, and /u/, in particular, tend to be centralized as compared to their long counterparts. The short /i/ is not necessarily more open than the long /ii/, but has a rather more central pronunciation; the short /u/ on the other hand is both more open and slightly more central than the long /uu/; the short /a/ is also slightly less open and more fronted than the long /aa/. Phonetically, there is a significant difference between short and long vowels. The duration of a long vowel, such as /aa/, as compared to its short counterpart, /a/, etc., is not just slightly longer but usually at least twice the duration.

i	gir	'Turn around!'	ii	giír	'saw'
	tíki	'bread'		tíini	'sharp'
e	preş	'mother-in-law'	ee	keéη	'cave'
	téka	'peaks'		teeká	'labour'
a	çak	'doubt'	aa	taaká	'Call!'
	táka	'blame'		káaη	'ear'
u	sum	'dry mud'	uu	t <sup>h</sup> úuηi	ʻpillar'
	t <sup>h</sup> úki	'spittle'		kúuη	'corner'
o	k <sup>h</sup> ond	'Speak!'	00	tooká	'Push!'
	tróki	'worn out'		kóoη	'arrow'

A convincing and consistent contrast between oral and nasalized vowels (as shown for Gilgiti Shina, Radloff 1999: 19) has not been found. Instead, nasalization seems to be a marginal suprasegmental feature of a limited number of lexemes (Liliegren 2008: 73-74). Apart from those, nasalization is a non-contrastive phonetic property of vowels occurring adjacent to a nasal consonant.

Environment as well as accent (see section 'Pitch accent' below) further influences the exact pronunciation of each of the ten vowels. Neutralization takes place between short unaccented /a/ and /e/, as well as between short unaccented /u/ and /o/.

## **Aspiration and breathiness**

Aspiration is best considered a property of the lexical stem, rather than as a segment or a secondary articulation of any one segment. The feature occurs only once in a (phonological) word, in a majority of cases word-initially, and is transcribed [h]. Some minimal pairs illustrate the contrastiveness of this feature:

$b^h$	b <sup>h</sup> óola	'were able to'	VS.	b	bóola	'hair'
$\mathbf{k}^{\mathrm{h}}$	k <sup>h</sup> aréeri	'bolt'	vs.	k	karéeri	'leopardess'
$\mathbf{W}^{\mathbf{h}}$	w <sup>h</sup> íi	'will come down (3sg)'	vs.	W	wíi	'water'

All Palula consonant phonemes – except the voiceless fricatives /s s c/, the distributionally limited / $\eta$   $\eta$ /, and the 'new' phonemes /x  $\chi$   $\eta$ / – can be accompanied by aspiration, particularly at syllable onset:

$p^h$	p <sup>h</sup> éepi	'father's sister'	$\mathbf{z}^{\mathrm{h}}$	zʰaáţ	'goat's hair'
$d^h$	d <sup>h</sup> ut	'mouth'	$l^{\rm h}$	l <sup>h</sup> oόη	'salt'
$t^h$	t <sup>h</sup> óngi	'axe'	$m^h$	m <sup>h</sup> aás	'meat'
tc <sup>h</sup>	tchéeli	'goat'	i <sup>h</sup>	i <sup>h</sup> úndi	'stick'

The voiced aspirated sounds are normally phonetically realized with breathy voice during their release, and/or the vowel that immediately follows is pronounced with (at least partial) breathy voice:  $[b^{fi}\hat{o}:la]$ . The voiced aspiration or 'breathiness' is also somewhat mobile within the syllable, and for some words even beyond the realm of a single syllable.

The contrastiveness of aspiration when co-occurring with the affricates /ts/ and /ts/ is somewhat doubtful and would deserve further and more detailed investigation. At least for the latter, it seems, it is by 'default' more or less clearly aspirated. A similar hesitation has been expressed on the /ts/  $\sim$  /tsh/ contrast in neighbouring Khowar (Endresen & Kristiansen 1981: 239).

## Pitch accent

A phonological word in Palula may carry one, and only one, accent. Phonetically the accent is primarily realized as relatively higher pitch, accompanied to some extent by higher amplitude. Generally speaking, in a single word, accent is associated with high pitch, and the corresponding lack of accent is associated with low (or default) pitch. The accent-bearing unit is the mora. This means that accent can be associated with a short vowel (as in /hár/ 'every'), or the first mora of a long vowel (as in /háar/ 'take away!'), or the second mora of a long vowel (as in /haár/ 'garland'). Palula pitch accent has one of the following phonetic manifestations: (i) high level (or falling) on a short vowel ['], (ii) rising on a long vowel [^], or (iii) falling on a long vowel [^].

Even though some combinations of syllables and accents are more common than others, and there are restrictions on accent placement, the location of the accent within a given word is not entirely predictable. Therefore, accent in Palula must be defined lexically. In some cases, difference in accent placement is the only phonemic contrast between two lexical items:

séeti	'thigh'	vs.	seetí	'having looked after'
déedi	'paternal grandmother'	vs.	deédi	'burnt (F)'
háar	'take away!'	vs.	haár	'garland'

Although voiced aspiration (or breathy vowels, as described above) is often accompanied by an initial pitch-dip, the pitch accent and its further implications for morphophonology is in Palula clearly distinct from the secondary effect aspiration has on pitch. Aspiration may coincide with a rising accent as in  $/d^h$ oór/ 'yesterday', as well as with a falling as in  $/d^h$ oór/ 'you may wash'. In the first word the rising pitch is phonetically reinforced by the aspiration, whereas in the second word an initial rising pitch is followed by a falling pitch about half-way through this long vowel, which produces a phonetic rising-falling contour.

# Transcription of recorded passage

#### **Broad transcription**

áak musaafár gárum cukhaáw zaní pajlaá jhíi de ta, cumaalí húucijee súuri séetim ki, ranaám mazí khajáak zjaát taaqatwár thaní. taním aní beetí zhulí itifaáq thíili ki, khajáak mustú rasaawaá cukhaáw gadí galajnií kaamjaáb bhílu, so dúja díi taaqatwár tasawúr bhíi. theé ba cumaalí húuci bíidi zjaát teéz bhe nikhéeti, mágam kanáa húuci zjaát bhíi de, eendáa so musaafár cukhaáw teentii huzutí pharé pajlóo de; aaxeér cumaalí húuci teentii koocíc urigeéli. theé ba súuri teentii taapjeelí sangí nikhéeti, atcaanák se musaafará teentii cukhaáw gadí geélu. theé cumaalí húuci qabúl thíilu ki, súuri ranaám dhujím mazí zjaát taaqatwár de.

# Narrow transcription

âik musaifár gárum cukhăiŭ zení pejlăi jĥîideţa | cumailí hûicĭe: sûiri şêitim kir | lanăim madzí khajâik zĭăi taiqat βár thaní || taním aní beití zĥulí tifăix thili tir | khajâik muştú taşai βăi cukhăiŭ gadigalejnĭi kaimĭăi bĥilo | so díra dîi taiqat βár tasa βúr bĥili || theiba cumailí hûici bîidi ziăi teiz bĥenikhêiti | mágam kanâi hûici ziăit bĥîide | eindâi so musaifár cukhăiŭ teinîi hudzuți pharé pejlôide || aixeir cumailí hûici teinîi koicíc urigeili || theiba sûiri teinîi taipĭeilí sangí nikhêiti | artainak se musaifará teinîi cukhăiŭ gadigeilo || thei cumailí hûici xabúl thilo kir | sûiri lanăim dĥŭír madzí ziăi taiqat βár de

# Orthographic version

آک مُسافر گرُم شُکھاؤ جنی پئلا یھی دے تہ شُمالی ہوُشِئے سؤری شیتِم کی رُنام مجی کھیاک زیات طاقتور تھنی۔ تنِم انی بیتی جُھلی اِتفاق تِھیلیٰ کی کھیاک مُشٹو رُس شاوا شُکھاؤ گائِنی کامیاب بِھلو سو دُیہ دی طاقتور تصور بھی۔ تھے بہ شُمالیٰ ہوُشیٰ بِیڈی زیات تیز بھے نکھیتی۔ مگم کنا ہوُشیٰ زیات بھی دے ایندا سو مُسافر شُکھاؤ تیٹی ہُجتیٰ پھرے پئلو دے۔ آخیر شُمالیٰ ہوشیٰ تیٹی کوشِش اُڑگیلیٰ۔ تھے بہ سوری تیٹی تاپئیلیٰ سنگی نِکھیتیٰ۔ اچانک سے مُسافرہ تیٹی شُکھاؤ گلِاگیلوٰ۔ تھے شُمالیٰ ہوشیٰ قبُل تِھیلوْ کی سوری رُنام دُھئم مجیٰ زیات طاقتور دئے۔

#### References

Endresen, Rolf Theil & Knut Kristiansen. 1981. Khowar studies. Acta Iranica 21, 210-243.

Liljegren, Henrik. 2008. Towards a grammatical description of Palula: An Indo-Aryan language of the Hindu Kush. Ph.D. dissertation, Department of Linguistics, Stockholm University.

Morgenstierne, Georg. 1941. *Notes on Phalūra: An unknown Dardic language of Chitral* (Skrifter utgitt av det Norska Videnskaps-Akademi). Oslo: Jacob Dybwad.

Radloff, Carla F. 1999. Aspects of the sound system of Gilgiti Shina (Studies in Languages of Northern Pakistan, vol. 4). Islamabad: National Institute of Pakistan Studies, Quaid-i-Azam University & Summer Institute of Linguistics.

Schmidt, Ruth Laila & Razwal Kohistani. 2008. *A grammar of the Shina language of Indus Kohistan* (Beiträge zur Kenntnis südasiatischer Sprachen und Literaturen 17). Wiesbaden: Harrassowitz Verlag.

Strand, Richard F. 2000–2001. The sound system of Açarêtâ (Richard Strand's Nuristân website) http://users.sedona.net/~strand/IndoAryan/Indus/Atsaret/AtsaretLanguage/Lexicon/phon.html (posted 1 December 2000, last modified 28 January 2001; 15 September 2009).

Zoller, Claus Peter. 2005. *A grammar and dictionary of Indus Kohistani*, vol. 1: *Dictionary*. Berlin: Mouton de Gruyter.