Euia Twas phonology and roman orthography

March 30, 2019

Phonemes

Table 1: Vowels sounds

(Height)	Front unr.	Front r.	Central	Back
High	i	y	ɨ	u
	ɪ	ʏ	ɨ̞	ʊ
Mid	ɛ			o
			[ɐ]	
Low			a	

Table 2: Consonant sounds

(Manner)	Labial	Coronal	Alveopalatal	Palatal	Velar	Labiovelar	Glottal
Nasal	m	n		ɲ	ŋ	$ŋ^w$	
Vcl. fricative		θ			x	x^w	h
Vcl. sibilant		s	x				
Asp. vcl. affric.			$tɕ^h$				
Vcl. affric.			tɕ				
Vcd. affric.			dʑ				
Asp. vcl. stop	p^h	t^h			k^h	k^{hw}	
Vcl. stop	p	t			k	k^w	
Vcd. stop	b	d			g	g^w	
Lateral approxim.		l		ʎ			
Tap		ɾ					
Trill		r					
Approximant		ɹ [ɻ]		j (ɥ)	ɯ	w	

All phonemes except the aspirates occur in native words although /ŋ^w/ is rare. The phoneme status of the tense high vowels certainly isn't crystal clear. They become (or revert to) [ɪj] etc. when a vowel follows, and both the roman orthography — which writes them ***íi*** etc. — and the traditional writing analyse them as (lax) vowel plus approximant. What holds me off from that analysis is mostly that a vowel inventory without peripheral high vowels is a bit unusual. They aren't in fact any different from [ɐ] which is always analysable as /aɪ/ or even /aɾ/ and in fact is so analysed by both writing systems. The main reason for positing an /ɪ/ distinct from /ɾ/ is that the roman orthography treats them as different. Much the same can be said of /ɥ/ which always can be analysed as either /j/ or /w/ although which of them it would be is not clear in all cases. The categorization of /θ/ as a fricative is also not absolutely obvious. Phonetically there certainly are voiceless [ɬ], [ɻ̊], [ç], [ɥ̊] and [ʍ] but both orthographies analyse them as hC or Ch clusters, and there is no instance where such an analysis isn't possible.[1] It is even the case that /θ/ has a usually approximant voiced allophone, which however differs from [ç] ~ [j] in that there are no (surface) minimal pairs.

[1] Also [ɯ] differs from the other approximants in that it alternates with [h] itself.

Letters and sounds

A tabular overview of Euia Twas graphemes and their corresponding (morpho)phonemes/allophones and Indic “sources”.

Table 3: Consonants

(Manner)	Labial	Coronal	Alveopalatal	Palatal	Labiopalatal	Velar	Labiovelar	Glottal
Nasal	***m***	***n***		***ni***	***nu***	***ny***	***nw***	
	/m/	/n/		/ɲ/	[ɲ^{w}]	/ŋ/	/ŋ^{w}/	
	m	*n, ṇ*		*ny, ñ*		*ṅ, ṅg*	*ṃ*	
Vcl. fricative		***z***				***q***	***qw***	***h***
		/θ/ [θ] [ð]				/x/	/x^{w}/	/h/, [ɦ]
		th				*(ṣ)*	*ph, (ṣv)*	*kh, h-*
Vcl. sibilant		***s***	***x***					
		/s/	/ɕ/					
		s, ṣ, ś	*s, ṣ, ś, (sy)*					
Asp. vcl. affric.			***ch***					
			/tɕ^{h}/					
			jh, ch, (dhy, thy)					
Vcl. affricate			***c***					
			/tɕ/					
			c, (ty)					
Vcd. affricate			***j***					
			/dʑ/					
			j, (y, dy)					
Asp. vcl. stop	***ph***	***th***		***khi***	***khu***	***kh***	***khw***	
	/p^{h}/	/t^{h}/		[c^{h}]	([c^{h}])	/k^{h}/	/k^{hw}/	
	bh	*dh*		*ghy*		*gh*	*ghv*	
Voiceless stop	***p***	***t***		***ki***	***ku***	***k***	***kw***	
	/p/	/t/		[c]	[c]	/k/	/k^{w}/	
	p	*t*		*ky*		*k*	*kv*	
Voiced stop	***b***	***d***		***gi***	***gu***	***g***	***gw***	
	/b/	/d/		[ɟ]	[ɟ]	/g/	/g^{w}/	
	b, v, (-p-)	*d, (-t-)*		*gy, (-ky-)*		*g, (-k-)*	*gv, (-kv-)*	
Vcl. lateral fric.		***hl***		***hli***	***hlu***			
		/hl/ [ɬ]		/hʎ/ [ç^{l}]	[ç^{lw}]			
		khl, phl		*(khly, phly)*				
Lateral approxim.		***l***		***li***	***lu***			
		/l/		/ʎ/	[ʎ^{w}]			
		l, -d-		*ly*				
Tap		***r***						
		/ɾ/						
		-r-, -ḍ-, -ṭ-						
Voiceless trill		***hr***						
		/hr/ [r̥]						
		ḍh, ṭh, khr, phr						
Voiced trill		***r-, rr***						
		/r/						
		r-, ḍ-, ṭ-, rr						
Vcl. approximant				***hi***	***hu***		***hw***	
				[ç]	[ů]		[ʍ]	
				khy, phy			*khv*	
Vcd. approximant		***a***		***i***	***u***	***y***	***w***	
		/ɹ/ [ɻ] [ɹ]		/j/ [j] [ʝ]	[ɥ] [ʝ^{w}]	/ɯ/ [ɯ] [ɣ]	/w/ [w] [ɣ^{w}]	
		-r		*y, hy*		*-h-, (-g-)*[2]	*v, hv*	

Table 4: Vowels

(Height)	Front unr.	Front r.	Central	Back
High	***íi***	***úu***	***ýy***	***ẃw***
	/i/	/y/	/ɨ/ [ɨ] [ɯ]	[u]
	īy, iy, Cy	*ūv, Cvy*	*ih, Rh*	*uv, Cv*
	í	***ú***	***ý***	***ẃ***
	/ɪ/	/ʏ/	/ɪ̈/	/ʊ̈/
	ī	*ū*	*i*	*u*
Mid	***e***	***(eu)***	***(ý)***	***o***
	/ɛ/	[œ]	[ə]	[ɔ]
	e, ai	*(ev)*	*(i), ∅*	*o, au*
			áa	
			[ɐ]	
			-ar, Cr	
Low			***á***	***(áy)***
			/a/ [ä]	[ɑ]
			a, ā	*-ah-, -ag-*

Phonotactics

The rather simple syllable structure is $(C_1)(R_1)V((R_2)C_2)$. V can be any vowel. C_1 can be any consonant except ***a*** /ɪ/ or ***y*** /ɯ̈/. R_1 can be any of ***i, (u), w, r, l***, R_2 can be any of these except ***l***, with ***r*** becoming ***a*** and not occuring in surely native words. C_2 can be an unaspirated stop, a nasal, a voiced approximant or a voiceless fricative other than ***x***. Except in some loanwords R_1 and R_2 cannot both be liquids, and syllables where both R slots are filled are somewhat rare. Voiced and voiceless stops do not contrast syllable-finally, being voiceless by default but voiced when the next syllable starts with a voiced obstruent, even across word boundaries. In orthography a word can in principle end in any C_1 when the next word begins with a vowel, with the final consonant of the first word and the initial vowel of the second word forming a syllable, so that an underlying consonant "resurfaces" in this context. The sequences /tj/, /dj/, /sj/ do not occur, their place being taken by the alveopalatals, even in the word boundary sequences ***t i, (t u), d i, (d u), s i, (s u)***. Loanwords which would otherwise end in alveopalatals usually add a supporting vowel, in old Indic loans usually by preserving a final ***á*** < *-a*, in newer loans adding ***ý***. The same is true of loans which would otherwise end in an l + obstruent or N + obstruent cluster, but in unstressed syllables the obstruent may be dropped instead. Initial sC clusters in loanwords get a prothetic vowel, usually ***ý***, but sometimes the vowel is anaptyctic instead. Finally anaptyxis is the rule, as in ***síkýstí(i)*** < English *sixty*, ***bokýs*** < English *box*.

[2] Apparent cases of Indic *-gh-, -dh-,-bh-* becoming E.T. ***y*** had become *-h-* already in M.I.A., e.g. ***swẃwáyá*** < *svahā* < *svadhā,* which even occurs in Sanskrit.