

# Proto-Indo-European Basics/Phonology

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Luke Smith

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## 1 Opening loquenda

- basic composition of Indo-European Language family
- Comparative method vs. internal reconstruction
- Proto- language vs. “pre-” language
- Note on non-use of IPA
- Trees vs. waves

Family	Attestation	Languages	Area
Anatolian	1650 BC	Hittite, Luvian (now dead)	Asia Minor
Indo-Aryan	1500 BC	Sanskrit (>Hindi, Bengali, Marati...)	India
Hellenic	1450 BC	Greek	Greece, Asia Minor
Iranian	1000 BC	Avestan, Persian, Kurdish, steppe lgs.	Persia, the steppes
Italic	700 BC	Latin, Oscan, Umbrian	Italy
Celtic	600 BC	Gaulish, Welsh, Irish	Europe, Asia Minor
Germanic	400 AD	Gothic, English, Norse, German	Northern Europe
Armenian	400 AD	Armenian	Armenia
Tocharian	500 AD	Tocharian A & B (now dead)	West China
Slavic	800 AD	Old Church Slavonic, Russian, Polish	Eastern Europe
Baltic	1300 AD	Prussian, Lithuanian, Latvian	Baltic region
Albanian	1300 AD	Albanian	Albania

## 2 Sound Correspondences

PIE	Sanskrit	Avestan	Greek	Latin	Welsh	English	Armenian	Lithuanian
*p	p	p/f	p	p	–	f	h	p
*b	b	b/w	b	b	b	p	p	b
*b <sup>h</sup>	bh	b/w	ph	f/b	b	b	b	b
*t	t	t/θ	t	t	t	th	t'	t
*d	d	d/ð	d	d	d	t	t	d
*d <sup>h</sup>	dh	d/ð	th	f/b/d	d	d	d	d
*k	ś	s	k	k	c	h	s	š
*g	j	z	g	g	g	k	c	ž
*g <sup>h</sup>	h	z	kh	h/g/f	g	g	j	ž
*k	k/c	k/x/c/š	k	k	c	h	h'	k
*g	g/j	g/ɣ/j/ž	g	g	g	k	k	g
*g <sup>h</sup>	gh/h	g/ɣ/j/ž	kh	h/g/f	g	g	g	g
*k <sup>w</sup>	k/c	k/x/c/š	k/t/p	qu/c	p	wh	k'	k
*g <sup>w</sup>	g/j	g/ɣ/j/ž	g/d/b	v/gu/g	b	qu	k	g
*g <sup>wh</sup>	gh/h	g/ɣ/j/ž	kh/th/ph	f/gu/b/v	g	b	g	g

Where there are multiple sounds in one cell, they are positional variants of each other.

Notice that some languages, Sanskrit, Avestan, Armenian and Lithuanian merge the plain and labio-velars. These are termed *satem* languages. The other bunch, Greek, Latin, Welsh and English merge the palatal and plain velars; these are termed *centum* languages. More on this later.

Compare these relatively stable sound correspondences to the coincidental similarities that emerge between languages as per the Rosenfelder articles.

PIE	Sanskrit	Avestan	Greek	Latin	Welsh	English	Armenian	Lithuanian
*ph <sub>2</sub> tér	pitṛ	ptā	patér	pater	atr	father	hayr	–
*bel-	bála	–	beltíōn	dēbilis	balch	–	–	–
*b <sup>h</sup> er-	bhárāmi	baraiti	phéro	ferō	*ber-	bear	berem	beṛti
*ténh <sub>2</sub> us	tanu	tanū	tanu-	tenuis	tenau	thin	–	tévas
*(h <sub>3</sub> )dónts	dánta	dantan-	odón	dente	dant	tooth	atamn	dantìs
*d <sup>h</sup> eh <sub>1</sub> -	dadhāti	daḍaiti	títhēmi	faciō	dall	do	dnem	deti
*kér	śíras	srū	kéras	cornū	–	horn	sar	šírše
*génh <sub>1</sub> -	jāti	zīzānti	génos	genus	geni	kin	cnawł	–
*g <sup>h</sup> el-	hári	zaray	khlōrós	helvus	gwelw	yellow	–	gelta
*krewH-	kravis	xrūva	kréas	cruor	crau	raw	–	kraūjas
*gel-	śīta	sarəta	gelandrón	gelū	–	cold	–	gelumà
*g <sup>h</sup> osti-	–	–	xenos	hostis	–	guest	–	–
*k <sup>w</sup> el-	cakrá	čaxra	pólos	colō	-chel	wheel	–	kēlias
*g <sup>w</sup> ih <sub>3</sub> wós	jīva	ǰva-	bíos	vīvus	byw	quick	–	*gīʔwas
*g <sup>wh</sup> erm-	ghṛṇa	garəma	thermós	furnus	gori	warm	ǰerm	garas

### 3 Consonant Inventory

	Labial	Coronals	Palatal	Plain	Labiovelars
voiceless	*p	*t	*k̑	*k	*k <sup>w</sup>
voiced	(*b)	*d	*g̑	*g	*g <sup>w</sup>
aspirated	*b <sup>h</sup>	*d <sup>h</sup>	*g <sup>h</sup>	*g <sup>h</sup>	*g <sup>wh</sup>
fricatives		*s			
liquids		*r, *l			
nasals	*m	*n			
glides			*y		*w

All of the consonants below the line in the middle can be syllabified/serve as the nucleus of a syllable.

## 4 “Laryngeals”

We’ll go into laryngeals later on, but for now, know that there are three somewhat mysterious sounds in PIE which have been totally lost in all but one language family, Anatolian, where only  $h_2$  survives. Two of these sounds will ‘color’ a surrounding /e/ into another vowel in the descendant languages.

1.  $h_1$  – No coloring. Possibly realized as [ʔ] or [h] or perhaps [ç].
2.  $h_2$  – Colors surrounding /e/ into [a]. Possibly [ʕ, ħ, x] or [χ].
3.  $h_3$  – Colors surrounding /e/ into [o]. Possibly [ɣ<sup>w</sup>].

Aside from vowel lengthening, the other main effect of laryngeals is that they cause *compensatory lengthening* all over the place. Again, we’ll go into how laryngeal theory developed and the data behind it later (probably next week).

## 5 Vowel Inventory

Pre-Proto-Indo-European had somewhere between one and ten vowels. That much we know. On the surface level, we can say that PIE had [a, e, i, o, u] in both long and surface varieties, but the deeper you go into pre-PIE morphophonology, the fewer vowels you need. Note the following:

- $*\bar{a}$ ,  $*\bar{i}$  and  $*\bar{u}$ , and many instances of the other long vowels can be derived from the loss of a following laryngeal and compensatory lengthening.
- $*i$  and  $*u$  can be thought of as syllabified glides.
- Most all instances of  $*a$  and many of  $*o$  can be derived by laryngeal coloring.
- All other instances of  $*o$  serves as a morphophonological alternate of  $*e$ , and thus may, way-back-when be related.

Therefore, it’s not too crazy (although still perhaps outside the norm) to think that pre-PIE had only one phonemic vowel: /e/.