Some famous Indo-European sound laws

1. Grimm's Law

PIE		Sanskrit		Greek		Latin		Germanic
*p *t *k *k *k		p t š k/ č k/č	: : : : : : : : : : : : : : : : : : : :	p t k k p/t	:	p t k k	: : : : : : : : : : : : : : : : : : : :	f θ h (< x) h (< x) h ^w (< x ^w)
*b *d *g *g *g	>	b d dz g/dz g/dz	: : : : : : : : : : : : : : : : : : : :	b d g g b/d	: : : : : : : : : : : : : : : : : : : :	b d g y	: : : : : : : : : : : : : : : : : : : :	p t k k k
$^*b^h \\ ^*d^h \\ ^*g^h \\ ^*g^{wh}$	> > > >	$\begin{array}{c} b^h \\ d^h \\ h \\ g^h/h \\ g^h/h \end{array}$:	$p^h \\ t^h \\ k^h \\ k^h \\ p^h/t^h$: : : : : : : : : : : : : : : : : : : :	f f h h	: : : : : : : : : : : : : : : : : : : :	b d g g w

2. The Law of the Palatals

PIE		Sanskrit		Greek
$*k/k^{W}$	>	k/č	:	p/t
$*g/g^{W}$	>	g/dʒ	:	b/d
$*g^h/g^{wh}$	>	g ^h /h	:	p^h/t^h

- Sanskrit č, dʒ, and h before front vowels
- Later phoneme merger (e, o > a) in Sanskrit obscured this environment
- Similarly Greek t before front vowels
- Analogical leveling can obscure the effects, particularly with o/e ablaut alternations

3. Consonant Clusters - Bartholomae's Law

• Voiceless stops are protected from the effects of Grimm's Law /C__

	Sanskrit	Greek	Latin	Germanic
*p	paš-	—	spek-	speh- (Goth.) 'see' (cf. spy)
*t	ašta:u	okto:	okto:	ahtau (Goth.) 'eight'
*k	nakt-	nukt-	nokt-	nahts (Goth.) 'night'

4. Grassmann's Law - Dissimilation

- A prohibition against two aspirated stops in a single word
- Voiced aspirate apparent from Germanic or from reduplication
- Occurred independently in Sanskrit and Greek

Sanskrit		Greek	Gothic	
bo:d ^h a		peut ^h a	biudan	'awaken'
band ^h a			bindan	'bind'
dád ^h a:ti		tít ^h e:ti		'places'
dzang ^h a:	'leg'		gag	'street'

5. Verner's Law

- Germanic non-initial voiceless fricatives are voiced, when they precede an accented syllable
- Sanskrit and Greek tend to preserve PIE accent; Latin and Germanic shifted the accent
- Verner's Law must have applied before Germanic accent shift

Sanskrit	Greek	Latin	Gothic	
saptá	heptá	séptem	síßun	'seven' 'father' 'hundred'
pitár-	paté:r	páter	fáðer	
šatám	hekatón	kéntum	húnda	

The discovery of several Laws that accounted to apparent exceptions to Grimm's Law led to the Neogrammarian's slogan:

This was an early realization that language has a systematicity and has led to a guiding principle underlying much of modern linguistics.

[&]quot;Sound laws suffer no exceptions."