

LING 110 || Summer 2011, Class #2

McFetridge, Chapter 3

A profound discovery by Sir William Jones in the late 18th century, put linguistics (or at least philology) on a new path.

— He saw that Sanskrit bore a close resemblance to Ancient Greek and to Latin ...

— and hypothesized that all three had the same source

— that would mean that Ancient Greek [G], Latin [L], and Sanskrit [Skt] are **sister languages**

There began a search for the predecessor of these languages. It turned out that there was a family of languages, **Indo-European [IE]**, that ranged from northern India, through what is now Iran, and across a significant chunk of Europe.

Consider the kinds of similarities that Jones found ...

Latin	Greek	Sanskrit	Gloss
pater	patēr	pitar	father
dentis	odous	danti	tooth
frater		bhrāter	brother
trēs	treis	traya	three

See Table III.1 on pages 27 and 28 of your text for a more complete list of correspondences.

The predecessor of all three languages is thought to be **Proto-Indo-European**, which has the handy acronym “PIE”. (BTW, “acronym” comes “akron” meaning ‘end, tip’ + “onoma” meaning ‘name’ [Gk].)

— So where does PIE come from?

— Two theories have been popular for some time now:

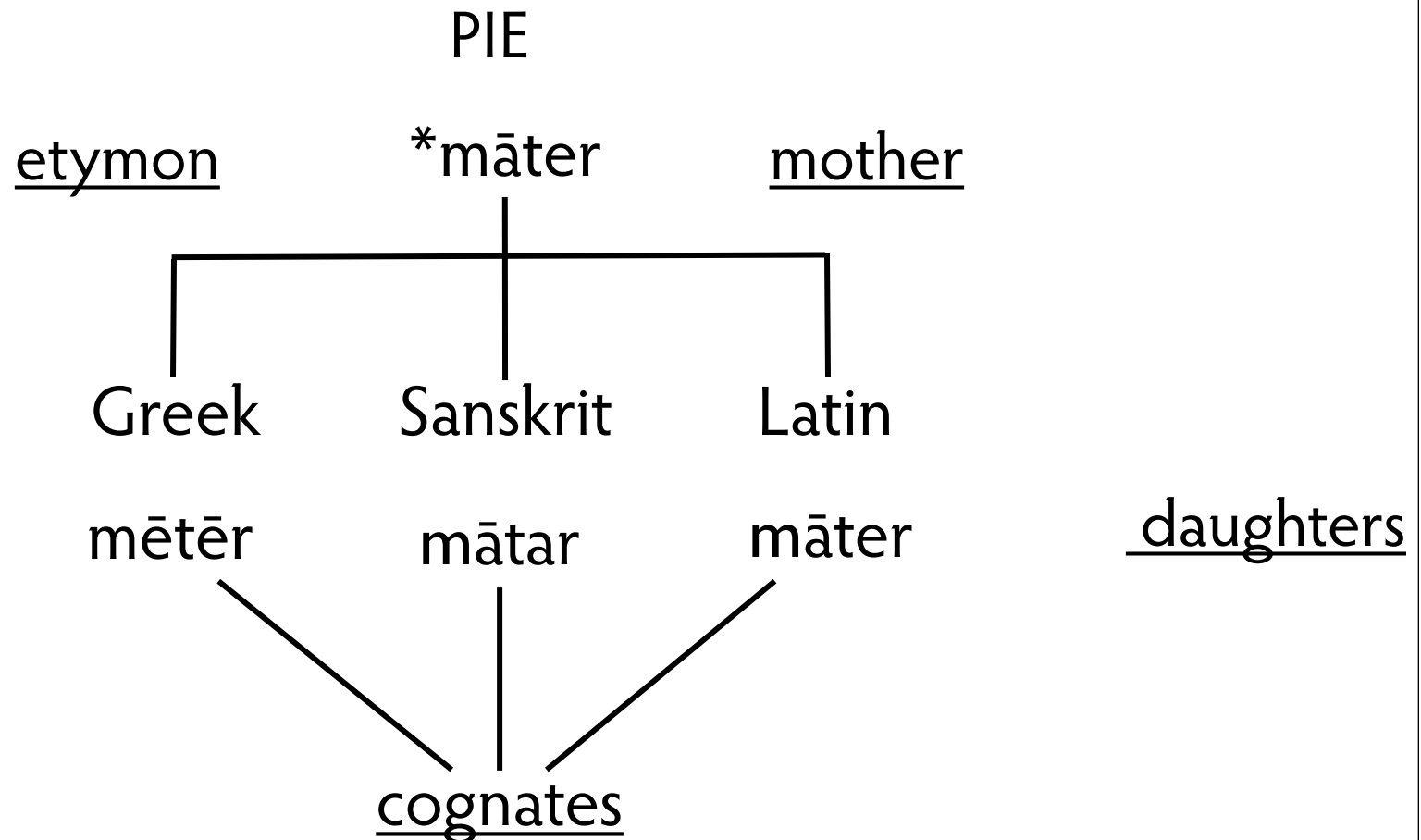
(1) Kurgan invaders from the Russian steppes

(2) Farmers from Anatolia (present-day Turkey)

— more recent research has complicated matters; some now propose a “pre Proto-Indo-European” and more frequent divisions into big language families.

We’ll stick with PIE, which we can reconstruct (we think) on the basis of what we know about changes in the daughter languages. Again, however, there are significant uncertainties surrounding ultimate origins.

Consider now the evolution of one particular word form through each of the IE languages we have mentioned:



Now, if English is an IE language, it should have cognates with other IE languages. And it does!

See Table III.2 on pages 31 and 32 of your text for more.

Latin	Greek	Sanskrit	English
p ater	p atēr	p itar	f ather
p edis	p odos	p ad	f oot

One of the changes that separated English (and other Germanic languages) from other IE languages was ...

$p \rightarrow f$

Another change involved [t] becoming ... what? "th"? "th" is NOT a sound; it's just a rather lousy representation. It's actually two sounds in English: compare "th" in "that" and "thing" or in "thy" and "thigh".

— French did not have these sounds and so the symbols for them were discarded.

Latin	Greek	Sanskrit	English
dent t is	odous	danti t i	tooth th
t rēs	t reis	t raya	th ree

The symbol for the sound we're interested in is "θ" or "theta". So we can propose a rule

$$t \rightarrow \theta$$

Is there more? Yes there is! We can posit a rule like this:

$$k \rightarrow h$$

All the more so because the sound [k] was sometimes represented with the letter "c".

Latin	Greek	Sanskrit	English
cornū	keras	crnga	horn
canis			hound
cordis			heart

So could these three proposed rules be part of one big change?

We need to deal with some phonetics first. Recall that speech sounds are created first by producing a column of air. That air flow is then coloured by changing the placement of certain speech articulators.

For vowels, the key articulator was the tongue; for consonants, several articulators have important roles to play.

Consonants are defined by three measures:

1. **MANNER**: how is the air flow affected?
2. **PLACE**: where is the air flow affected?
3. **VOICING**: what is the state of the glottis?

Let's look at these one at a time...

Manner.

We can stop the air completely for a very brief period. Sounds made this way are called **stops** or **plosives**.

We can constrict the air flow and produce **fricatives**.

We can both stop and then constrict to produce **affricates**.

We can modify the air flow in other ways to create **glides** and **laterals**.

We can pass the air through the nasal cavity to create **nasals**.

Place.

Modification of the airflow can occur in a number of places in the vocal tract. The **lips**, the **alveolar ridge**, the **tongue**, and the **teeth** all have their parts to play.

Glottis.

The glottis has one of two states at any given moment: **vibrating** (to create voiced sounds) or **not vibrating** (to create voiceless sounds).

Table III.3 on p.35 is very important. We'll go through this with care.

OK, so armed with all the foregoing, what can we now say about our three proposed rules?

$p \rightarrow f$

$t \rightarrow \theta$

$k \rightarrow h$

These changes are part of a big comprehensive shift that helped to distinguish English and Germanic languages generally from other IE languages.

The change is called the **GERMANIC CONSONANT SHIFT** [GCS]

— It was formerly called “Grimm’s Law”, named after one of the Grimm brothers. That’s right, the same Grimm brothers famous for their timeless fairy tales.

To examine the GCS in more detail we’ll use words that English has borrowed because few of us are competent enough in Ancient Greek and Latin to use those words directly.

Languages borrow words all the time. If a borrowed word has been in a language long enough, it starts to look like a native word, e.g., “basubarū” in Japanese.

— this is evidence of rule-based behaviour in word formation

Consider words like “pneumonia” and “psychiatrist”. English does not allow [pn] and [ps] word-initially. So we don’t pronounce the [p], although the spellings still reflect the original base of the words.

Typically, when a word is first borrowed, it will follow the rules of the original language.

— thus it is necessary to know what language a word is associated with, viz., its origin, in order to know which rules it will obey.

— example: the word “humane”. This is borrowed from French and retains the **WORD-FINAL STRESS** typical of French.

— but the word “human” comes from the same source, although it was borrowed earlier and has undergone **NATURALIZATION**, as you can tell from the **WORD-INITIAL STRESS**.

Let's consider first the p → f change. We'll look at the word "feather".

The Merriam-Webster [MW] online dictionary gives us this:

Middle English fether, **from** Old English; **akin** to Old High German federa wing, Latin petere to go to, seek, Greek petesthai to fly, piptein to fall, pteron wing

First Known Use: before 12th century

The crucial word here is "**AKIN**". This means "**COGNATE WITH**". So "feather" is a native English word because it developed from OE through ME to, obviously, CE.

BTW, the Greek, Latin, and Old High German cognates are all thought to have developed from a PIE base *pet.

Now, we'll look at the word "pen". We have to go the third entry in the MW to find the origins we're looking for ...

Middle English penne, from Anglo-French, feather, pen, from Latin penna, pinna feather; akin to Greek pteron wing — more at [feather](#)

First Known Use: 14th century

This word shows a different route into CE. It came from ME, which in turn came from Anglo-French [AF].

— English is not a daughter of French and so the word is borrowed. (We can find the relationship among relevant languages from the language tree in Figure III.1 on p.29.)

— note that both “pen” and “feather” are cognate with Gk “pteron”. They both descend from the same word.

Finally, “helicopter”...

French hélicoptère, from Greek heliko- + pteron wing — more at [feather](#). First known use: 1887

There's “pteron” again. The PIE base is *pet.

— all three words we examined relate to flight in some way (quill pens used to be made from feathers!)

Something more subtle: the words “legal” and “loyal”.

“legal” has the following etymology:

Anglo-French, from Latin legalis, from leg-, lex law. First Known Use: circa 1500.

So did the word come to us from French? We have to say “no”. Why?

The usual route from Latin to French is through Old French. That didn’t happen here, OF was skipped. So we say that “legal” is a Latin word despite its period in French.

Compare this with “loyal”:

Middle French, from Old French leial, leel, from Latin legalis legal. First Known Use: 1531.

This word developed naturally through Old French and was subject to French rules that included the change of “g” to “y” and “ey” to “oy”.

— so this word developed natively in French.

So, to recap all of this: If a word existed in OE, it's an English word. If a word existed in OF, it's a French word.

If a word enters a language from a sister (or unrelated) language, it is NOT a native word, it is a **BORROWING**.

When following a chain of borrowings, take it to the last language, e.g., "tropic"

Middle English "tropik", from Latin "tropicus" of the solstice, from Greek "tropikos", from "tropē, turn

You don't see any "akin" here; this is a Greek word.

Now we can consider the Germanic Consonant Shift more closely. Let's look at examples of voiceless stops becoming corresponding voiceless fricatives...

p → f, t → θ, k → h

Latin	Greek	English
p edestrian	p odiatrist	foot
lupus		wolf
	pyre	fire
plenty	plethora	full
tertiary	tripod	three
pen	pterodactyl	feather
astonish	stentorian	thunder
cordial	cardiac	heart
	cannabis	hemp
canine		hound

voiced stops became corresponding voiceless stops: b → p, d → t, and g → k

Latin	Greek	English
vibrate		whip
labial		lip
cannabis		hemp
pedal	tripod	foot
edible		eat
persuade	hedonism	sweet
dental	mastodon	teeth
cognition	diagnosis	know
margin		mark
	erg	work

The third aspect of the GCS is “voiced aspirates became corresponding voiced stops”. But what is an **aspirate**? An aspirate is a voiced stop accompanied by a puff of air. You can get close to it with the medial sound in a word like “Budd**dh**ism”.

Our analysis is not quite as regular as in the preceding changes. OK for Greek and English, respectively

bh → ph

bh → b

dh → th

dh → d

gh → kh

gh → g

Latin typically had bh → f; but dh changed to f, too, at the beginning of a word. Inside a word, dh became b if it followed r or u.

The gh → g change resulted in the g disappearing in Latin. In English, gh developed to g and then to y. This change to y is not part of the GCS. The following slide shows examples of the aspirate changes.

See tables III.13, 14, 15 for more examples.

Latin	Greek	English
fraternity		brother
fragile		break
Lucifer	phosphorous	bear
ruby		red
barber		beard
fact	thesis	do
host	guest	
vehicle		way
horticulture		garden
	chlorine	yellow

PATTERNS OF BORROWING

Greek was influential because of its importance in science, religion, philosophy, and medicine. Sometimes a word would come into English from **French**, but French had borrowed it from Greek, e.g., “chameleon”. Other times a word would come into English straight from Greek, e.g., “criterion”.

Latin gained its importance not through intellectual prestige but rather through conquest. It became a **lingua franca** in the areas that the Romans controlled. Again, sometimes a word came into English straight from Latin, e.g., “restrict”. At other times English may have borrowed a word from French, which had borrowed it from Latin, e.g., “odometer”.

And of course English borrowed many native French words, e.g., “loyal”.

And so ...?

Well, we'd like to know what happens as a word moves from language to language. What rules does it obey?

For example, consider Germanic borrowings (pre-OE) from Latin and later English borrowings from the same Latin sources:

LATIN	GERMANIC BORROWING	ENGLISH BORROWING
discus	dish	disk
vinum	wine	vinegar
butyrum	butter	butylene
cucina	kitchen	
furca	fork	bifurcate
cupa	cup	cupola

Note the change from “discus” to “dish”. Same thing from “piscis” to “fish”. This sound change rule is $k \rightarrow \int$.

But this rule disappeared early on because when words were borrowed from Viking invaders in the 8th century, the [k] sound remained intact, e.g., “scar”, “scab”, “skirt”.

There were “Latinate” borrowings into OE, too:

Latin	Old English borrowing	Later English borrowing
candela	candle	candelabra
ancora	anchor	
febris	fever	febrile
schola	school	scholar
presbyter	priest	Presbyterian

There were Latinate borrowings into ME from both Latin and from Old French. Please see Tables III.20 and III.21, respectively.

Of course Contemporary English borrowed words from Latin too, e.g., “nucleus”, “auditorium” and “lens”.

And French has contributed numerous words as well, e.g., “menu”, “elite”, and “cliché”.

While some criticize borrowings as a sign that English is in “decline”, these words wouldn’t be borrowed if they didn’t fill a need.

Consider, for example, the shade of meaning difference between “breakable” (a native English word) and “fragile” (a French borrowing). There is no such thing as pure **synonymy**!

So at the end of the day, we have a lexicon that is split into four big chunks: Greek, Latin, French, and English (with other languages contributing on a much smaller scale).

We’ll review Exercise 1 in lecture...