

# Dialects and variation

## LING 200: Introduction to the Study of Language

Hadas Kotek



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# Outline

- 1 A brief excursion into historical linguistics
- 2 Language change and its causes
  - The agents of change
  - Processes of language change

Slides credit: Lauren Clemens, Moti Lieberman, David Pesetsky

# Change is systematic

## What changes?

- Lexicon
- Phonology
- Morphology
- Syntax

## When do changes happen?

- **Diachronic change:** change over time, across generations.
  - Language families, *proto*-languages.
- **Synchronic change:** change within speakers at the same time.
  - Dialects, idiolects, sociolects, language varieties.
  - ...although, as we'll see later, these labels aren't very accurate.

# Change is systematic

## How to identify relations among languages?

### **Relatedness is best established on the basis of the lexicon:**

- Because there are an unbounded number of possible words, finding the same sets of words in multiple languages is low-probability.
  - Also: UG doesn't say anything (as far as we know) about the sound-meaning correspondences in lexical entries except that they exist.
- UG limits the range of variation among syntactic systems. There is a substantially smaller number of possible syntactic systems, so finding the same syntax in multiple languages is higher-probability.



Sir William Jones  
(1746-1794)

“The Sanskrit language, whatever be its antiquity, is of a wonderful structure; more perfect than the Greek, more copious than the Latin, and more exquisitely refined than either, yet bearing to both of them a stronger affinity, both in the roots of verbs and in the forms of grammar, than could possibly have been produced by accident; so strong indeed, that no philologer could examine them all three, without believing them to have sprung from some common source, which, perhaps, no longer exists: there is a similar reason, though not quite so forcible, for supposing that both the Gothic and the Celtic, though blended with a very different idiom, had the same origin with the Sanskrit; and the old Persian might be added to the same family, if this were the place for discussing any question concerning the antiquities of Persia.”

Sir William Jones  
The third anniversary discourse, on the Hindus  
Delivered 2 February, 1786, to the Royal Asiatic Society

# Language families

## Which of these languages are related?

	Sanskrit	Greek	Latin	Gothic	Old Irish	Lithuanian	Basque	Hungarian	Turkish
1.	ékas	hei:s	u:nus	ains	oín	vienas	bat	egy	bir
2.	dvaú	dúo:	duo	twai	da	dù	bi	kettö	iki
3.	tráyas	trei:s	tre:s	þreis	tri	try:s	hiru	három	üç
4.	catvá:ras	téttares	quattuor	fidwor	cethir	keturi	lau	négy	dört
5.	páñca	pénte	quinque	fimf	cóic	penki	bost	öt	beş
6.	sát	héx	sex	saihs	sé	jeſi	sei	hat	altı
7.	saptá	heptá	septem	sibun	secht n-	septynì	zazpi	hét	yedi
8.	astaú	októ:	octo:	ahtau	ocht n-	aftuonì	zortzi	nyolc	sekiz
9.	náva	ennéa	novem	niun	noí n-	devynì	bederatzi	kilenc	dokuz
10.	daśa	déka	decem	taihun	deich n-	de:fejmt	hamar	tíz	on

# Language families

Which two languages are related?

	<b>A</b>	<b>B</b>	<b>C</b>
'two'	er	erku	duo



## Language families

Which two languages are related?

	<b>Mandarin</b>	✓ <b>Armenian</b>	✓ <b>Greek</b>
'two'	er	erku	duo

Proto-Indo-European *\*dw* > Armenian *erk*

	<b>Armenian</b>	<b>Greek</b>
'two'	erku	duo
'fear'	erki-	dwi-
'long'	erkar	dwa:ron

- ➡ Simple identification of words that look similar is not enough to establish that two languages are related. We need *systematic* evidence.



93. Jacob Grimm

# Sound changes

## Grimm's law

- In 1822 Jacob Grimm formulates “Grimm’s Law”.
- Grimm’s law describes a regular correspondence between the **stop consonants** of **Latin, Greek and Sanskrit** ...
- ... and the consonants of **the Germanic languages**.

# Sound changes

	Latin	Greek	English
<b>b~p</b>	<i>labium</i>		<i>lip</i>
<b>d~t</b>	<i>duo</i> <i>decem</i>	<i>deka</i>	<i>two</i> <i>ten</i>
<b>g~k</b>	<i>genu</i> <i>gnosco</i>		<i>knee</i> <i>know</i>
<b>p<sup>h</sup>~b</b>	<i>fero</i> <i>frater</i>	<i>pher-o</i> <i>phrater</i>	<i>bear</i> <i>brother</i>
<b>t<sup>h</sup>~d</b>	<i>vidua</i>	<i>erythros</i> <i>weithos</i>	<i>red</i> <i>widow</i>
<b>g<sup>h</sup>~g</b>	<i>hostis</i>		<i>guest</i>

	Latin	Greek	English
<b>p~f</b>	<i>ped-e</i> <i>pisc-is</i>	<i>pod-e</i>	<i>foot</i> <i>fish</i>
	<i>pater</i>	<i>pyr</i> <i>pater</i>	<i>fire</i> <i>father</i>
<b>t~θ</b>	<i>tres</i> <i>dente</i>	<i>treis</i> <i>donte</i>	<i>three</i> <i>tooth</i>
<b>k~h</b>	<i>corde</i> <i>cane</i> <i>centum</i> <i>cornu</i>	<i>kardion</i> <i>kuon</i> <i>hekton</i>	<i>heart</i> <i>hound</i> <i>hundred</i> <i>horn</i>

## Sound changes

Reality check:

we *know* these languages are all related:

French	Italian	Spanish	Portuguese
cher	caro	caro	caro
champ	campo	campo	campo
chandelle	candela	candela	candeia

... and a regular sound law does distinguish French from the others!

Two lexical items that share a common ancestor are called **cognates**.  
“French *cher* and Italian *caro* are cognates”

# Sound changes

We also get sound changes within a language...

	<b>Latin</b>	<b>Italian</b>	
1.	flamma	fjamma	'flame'
2.	flumen	fjume	'river'
3.	ple:nus	pjeno	'full'
4.	plu:ma	pjuma	'feather'
5.	kla:vis	kjave	'key'
6.	kla:rus	kjaro	'clear' (L), 'bright' (I)
7.	glakies	gjatjio	'ice'
8.	glu:to(ne)	gjottone	'glutton'
9.	pla:kare	plakare	'calm'
10.	floridus	florido	'flowery'

# Cognates

Beware false cognates. . .

English *have*

Latin *habere*

In fact:

English *have* is related to Latin *capere* 'take' by a known sound law — called. . .

# Cognates

Beware false cognates...

English *fuck*

Latin *futuere*

In fact:

Germanic *\*fuk-* is probably from earlier *\*pug-* (*\*peig-*) by Grimm's law

(and may be related to Latin *pug-* 'fight' though opinions differ)

(\*-forms are hypothesized proto-forms.)



# Cognates

Sound-Meaning correspondences are themselves unstable:

Old English (*ge*)*bed* ‘prayer’

> Modern English *bead*

Old English *steorfan* ‘die’ (cf. German *sterben*)

> Modern English *starve*

Old English *cniht* ‘servant’

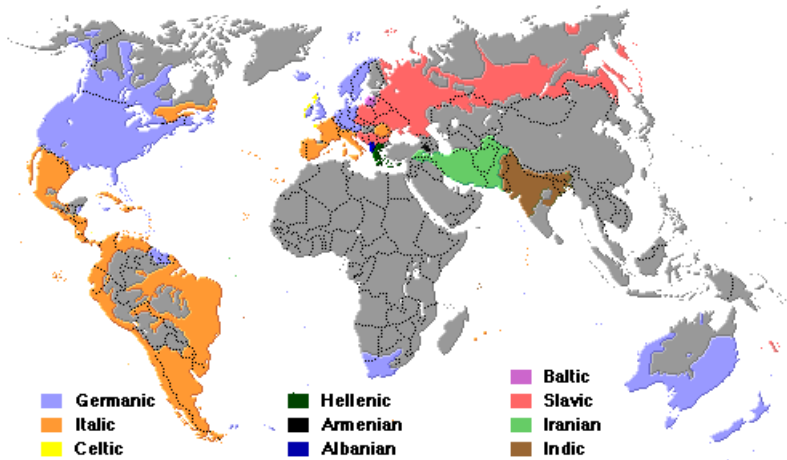
> Modern English *knight*

Latin *niger, nigra*, etc. ‘dark-colored’, ‘black’

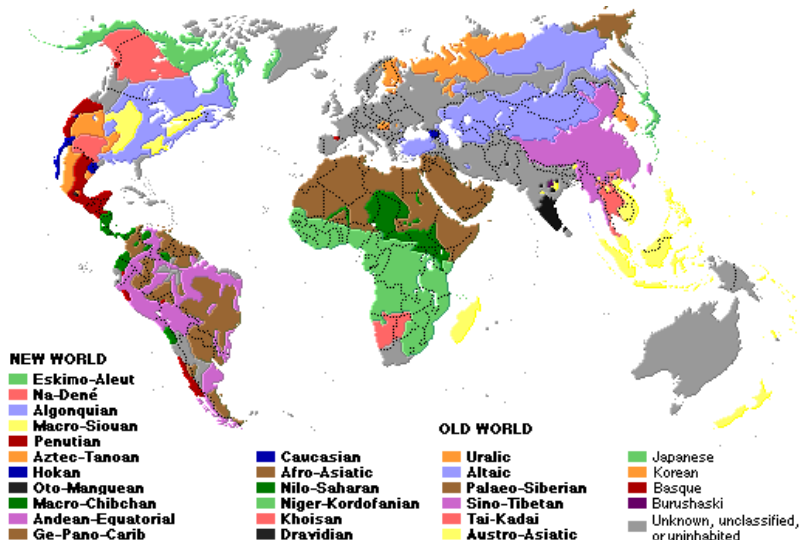
> French *nègre* ‘black person’ (now pejorative)

> Kreyòl (Haiti) *nèg* ‘person’

# Indo-European languages spoken here (non-gray):



# Non-Indo-European languages spoken here:



# Change is systematic

## What changes?

- **Lexicon:** words are added and lost, words change their meaning.
  - **Phonology:** rules are lost, new rules emerge, changes to the phonemic inventory of a language.
  - **Morphology:** change from analytic to synthetic, and vice versa; morphemes added or lost.
  - **Syntax:** changes in word order; movement rules (e.g. question formation) can be lost, or new ones emerge.
- ➡ **Language change = Grammar change!**

Reminder: **Synthetic languages** have a high morpheme-per-word ratio, and usually a free word order. **Analytic languages** have a low morpheme-per-word ratio and fixed word order (think Inuktitut vs. English).

# Language change and dialects

## The agents of change

- Children learn language on the basis of positive evidence only.
- This inevitably leads to **language change**, since small changes in input can bring forth changes in the grammar children converge on.
- It also inevitably leads to **language variation**: every language has numerous varieties (dialects, sociolects)

# Language change and dialects

- ➡ Children are the agents of change.
  - Changes in input can have a spectacular impact on the grammar of the next generation.

## Changes in input:

- Language contact.
- Sound changes (articulatory simplification, spelling, pronunciation, ...)
- Speakers come to favor certain constructions in their language use.

## Note:

- Children change the **grammar** of language.
- Adults may change their **use** of language.

# Child language acquisition

## Changes in input:

- Children must set **parameters**.
- Each parameter setting is associated with a set of “cues” — words/sentences that provide evidence for a particular setting.
- Changes in input can make children “mis-set” parameters  
→ *grammar change!*



# Processes of language change

## Reanalysis of input

- 1 Assume that rule/algorithm X produces output string  $a b c d e$ .
  - 2 The string  $a b c d e$  is **reanalyzed** if speakers assume a different rule/algorithm to generate it.
- ➡ **Reanalysis:** the same string  $a b c d e$  is now generated by rule/algorithm Y.
- **Grammaticalization** (lexical morphemes → grammatical morphemes)
  - **Fusion:** words become affixes
  - **Analogy:** patterns are regularized



# Loss of affixes: Case in Old English

<b>SINGULAR</b>	<b>masculine</b>	<b>neuter</b>	<b>feminine</b>
NOM	hund	deōr	gief- <b>u</b>
ACC	hund	deōr	gief- <b>e</b>
GEN	hund- <b>es</b>	deōr- <b>es</b>	gief- <b>e</b>
DAT	hund- <b>e</b>	deōr- <b>e</b>	gief- <b>e</b>
<b>PLURAL</b>			
NOM	hund- <b>as</b>	deōr	gief- <b>a</b>
ACC	hund- <b>as</b>	deōr	gief- <b>a</b>
GEN	hund- <b>a</b>	deōr- <b>a</b>	gief- <b>a</b>
DAT	hund- <b>um</b>	deōr- <b>um</b>	gief- <b>um</b>

hund = ‘dog’; deōr = ‘animal’; gief = ‘gift’

# Loss of affixes: Case in Old English

<b>SINGULAR</b>	<b>old English</b>	<b>middle English</b>	<b>modern English</b>
NOM	hund	hund	hound
ACC	hund	hund	hound
GEN	hund- <b>es</b>	hund- <b>əs</b>	hound' <b>s</b>
DAT	hund- <b>e</b>	hund- <b>ə</b>	hound
<b>PLURAL</b>			
NOM	hund- <b>as</b>	hund- <b>əs</b>	hound- <b>s</b>
ACC	hund- <b>as</b>	hund- <b>əs</b>	hound- <b>s</b>
GEN	hund- <b>a</b>	hund- <b>ə</b>	hound- <b>s</b>
DAT	hund- <b>um</b>	hund- <b>ə</b>	hound- <b>s</b>
	<b>5 affixes</b>	<b>2 affixes!</b>	<b>reanalysis</b>

# Loss of affixes: Case in Old English

- ➡ Opacity in input: insufficient evidence for 4 cases!
  - **Reanalysis:** children reanalyze forms as plural *-s* and genitive *-s*
  - **Analogy:** impoverished system of affixes generalized to all noun forms
  - **Resulting system:** regular plural *-s* and possessive *'s*
    - With some left-over forms: oxen, children, ...
  - **Loss of affixes causes a dramatic change to syntax:**  
*Old English:* free word order (“scrambling”)  
*Modern English:* fixed word order!  
(synthetic → analytic)

# Old English free word order

- (1) Sē man slōh Pone kyning.  
the<sub>NOM</sub> man slew the<sub>ACC</sub> king  
‘The man slew the king’

Other possible word orders:

- (2) Pone kyning slōh sē man.  
(3) Sē man Pone kyning slōh.  
(4) slōh Sē man Pone kyning.  
(5) slōh Pone kyning Sē man.

## For next time...

- **Assignment 6 is due today by midnight**