INTD0112 Introduction to Linguistics

Lecture #21
Nov 18th, 2009

Announcements

- Midterm graded. Very good work overall. I wrote some comments, but should you have questions, please do come to my office hours.
- I'll return HW4 by Monday at the very latest.
- HW5 is due today and will be returned to you the Monday after Thanksgiving.
- On Monday, I'll let you know the order of presentations for the last week of classes.

Language change continued

- We have seen examples of three types of language change so far: lexical, semantic, and morphological.
- Today, we discuss two other aspects of change: syntactic change and phonological change.
- We also talk about historical linguistics, and how to reconstruct dead languages.

Syntactic change: Word Order

- Word order in a language could change over time. For example, Old English (OE) had more variable word order than Modern English (ModE) does.
- So, we do find SVO order in simple transitive clauses:

  Hē geseah þone mann

  He saw the man

Syntactic change: Word Order

- When the clause began with an element such as þa (="then"), the verb would follow that element, therefore preceding the subject:

  þa sende sē cyning þone disc

  then sent the king the dish

  "Then the king sent the dish."

Syntactic change: Word Order

- When the object was a pronoun, the order in OE was typically SOV:

  Hēo hine lærde

  She him saved

  "She saved him."

Syntactic change: Word Order

- The same SOV word order also prevailed in embedded clauses, even when the object was not a pronoun:

  ƥa hē ƥone cyning sōhte, hē bēotode
  when he the king visited, he boasted
  "When he visited the king, he boasted."

Syntactic change: Word Order

- As we noted earlier, case markings were lost during the Middle English (MidE) period, and, as you should expect, SVO order became the unmarked word order in the language.
- The following table shows the change in word order frequency that took place around 1300 and 1400:

Syntactic change: Word Order

Year	*1000*	*1200*	*1300*	*1400*	*1500*
OV %	53	53	40	14	2
VO %	47	47	60	86	98

Syntactic change: Negation

- Negation in OE was done by placing the negation marker *ne* before a verbal element:

  ƥæt he na siƥƥan geboren ne wurde
  that he never after born not would-be
  "that he should never be born after that"
- Notice word order and the use of double negatives.

Syntactic change: Negation

- Proto-Indo-European is believed to have had a negation marker *ne*.
- In old Latin, a new form arose from combining *ne* with the word for "one" (*ūnum*). This led to the form *non*.
- Hence, Old French ended up with both *non* and *ne*.

Syntactic change: Negation

- Both forms developed a division of labor, where *ne* became the used form when the negation word is placed before verbs, and *non* for other cases of negation:

  Il ne dorme pas
  he not sleeps (not)
  Vous venez ou non?
  you come or not
- Interestingly, many French speakers today are dropping the ne:

  J'ai pas dit ça
  I've not said this

Double comparatives and superlatives

- Examples:

  more gladder, more lower, moost royallest, moost shamefullest
- These were all ok in Middle English.

Genitives

The Wife's Tale of Bath	(MidE)
The Wife of Bath's Tale	(ModE)
The man's hat from Boston	(MidE)
The man from Boston's hat	(ModE)

Phonological change

- Perhaps the most noticeable change in the grammar of a language happens in pronunciation.
- Even though change can affect all areas of phonology (e.g., tone, stress, and syllable structure), we will focus here primarily on change involving individual sounds as they occur in sequence. This is called *sequential change*.

Assimilation in place or manner

Old Spanish [semda] → Modern Spanish [senda] "path"
Early Latin [inpossiblis] → Late Latin [impossiblis]
Early OE [stefn] → Later OE [stemn] "stem"
Latin [octo] (c = k) → Italian [otto] "eight"

Assimilation: Affrication

- Affrication is a form of assimilation in which palatalized stops become affricates, either [ts] or [tʃ] if the original stop was voiceless, or [dz] or [dʒ] if the original stop was voiced, e.g.,

Latin centum [k] → Old French cent [ts] "one hundred"
Latin medius [d] → Italian mezzo [dz] "half"

Assimilation: Nasalization

- Vowels may get nasalized before nasal consonants, followed by deletion of that nasal consonant (typically when it is final). This is how nasal vowels were created in French and Portuguese, e.g.,

Latin	Portuguese	French
bon-	bom [bõ]	bon [bɔ̃] "good"

Dissimilation

Late Latin [amna] → Spanish [alma] "soul"
Latin [arbor] → Spanish [arbol] "tree"
Italian [albero]
(but cf. French *arbre*).

Epenthesis

Earlier OE [ganra] → Late OE [gandra] "gander"
Latin [schola] → Spanish [escuela] "school"

Metathesis

Earlier OE *waps* → Late OE *wasp* "wasp"
Earlier OE *þridda* → Late OE *þirdda* "third"

- Also at a distance:
  Latin *mīrāculum* → Spanish *milagro*

Vowel deletion

- A vowel may be deleted from a word, resulting in *apocope* (if the vowel is final) or *syncope* (if the vowel is medial):
- Apocope:
  Latin [ōrmáre] → French [orner] "decorate"
- Syncope:
  Latin [pérdere] → French [perdre] "lose"

Vowel reduction

- Vowel deletion is frequently preceded by vowel reduction, where a vowel is reduced to schwa, followed by syncope or apocope, e.g.,

OE	MidE	Early ModE
stān<u>a</u>s [a]	ston<u>e</u>s [ə]	ston<u>e</u>s [ø]
nam<u>a</u> [a]	nam<u>e</u> [ə]	nam<u>e</u> [ø]

Consonant deletion

- Consonants may also delete from a word giving rise to another instance of pronunciation change, e.g., Old and Middle English had [kn] and [gn], but the initial consonant underwent deletion.
- And of course French provides a great example of loss of word-final consonant deletion:
  gros [gro] "large"
  chaud [ʃo] "warm"

Substitution

- Substitution involves the replacement of one segment with another similar-sounding segment:

  MidE [x] → ModE [f] in "laugh"
  Standard English [θ] → Cockney [f] in "thin"

Phonological split

- A phonological split happens when two allophones of the same phoneme become contrastive due to the loss of the conditioning environment.
- This is how [n] and [ŋ] came to be phonemes in English: [ŋ] was an allophone of /n/ before velar consonants, but when consonant deletion in MidE took place, it resulted in minimal pairs such as *sin* [sɪn] and *sing* [sɪŋ], making the difference phonemic.

Phonological merge

- Phonological merge happens when two phonemes collapse into one, e.g., the case of Cockney English /f/ and /θ/:

  fin [fɪn] and *thin* [fɪn]

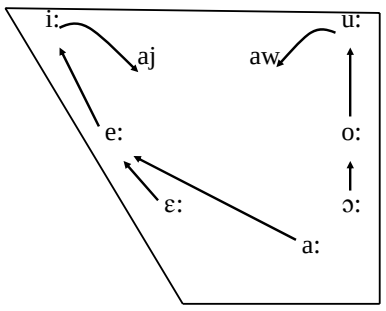
Phonological Shift

- A phonological shift is a change in which a series of sounds is systematically modified so that their organization with respect to each other is altered.
- A well known example of this phonlogical change is the so-called *Great Vowel Shift* (GVS) in the history of English, where the seven long vowels underwent a series of modifications between 1400-1600, as shown in the following table:

The Great Vowel Shift

Shift			Example			
MidE		ModE	MidE		ModE	
[iː]	→	[aj]	[miːs]	→	[majs]	"mice"
[uː]	→	[aw]	[muːs]	→	[maws]	"mouse"
[eː]	→	[iː]	[geːs]	→	[giːs]	"geese"
[oː]	→	[uː]	[goːs]	→	[guːs]	"goose"
[ɛː]	→	[eː]	[brɛːk]	→	[breːk]	"break"
[ɔː]	→	[oː]	[brɔːk]	→	[broːk]	"broke"
[aː]	→	[eː]	[naːmə]	→	[neːm]	"name"

The Great Vowel Shift



The Great Vowel Shift

- We can see effects of the GVS in the alternation between long and short vowels in word pairs like those below:

  please-pleasant

  serene-serenity

  sane-sanity

  crime-criminal

The Great Vowel Shift

- The alternation is the result of the GVS taking place after the Early Middle English Vowel Shortening rule affected the second word in each pair.
- When the GVS occurred, it affected only the first word of each pair since it was the one that had the long vowel by then.

Summary of language change and transition to "reconstruction"

- To sum up, a language undergoes change in its lexicon as well as all components of grammar (morphology, syntax, phonology, and semantics).
- Over time, these changes might become considerable enough to the point where we become unable to tell if two historical varieties of the same language are actually related. Luckily, though, historical linguists developed ways to establish historical relations among languages. We discuss this today.

Historical linguistics

- The 19th century was the century for the study of historical (aka *diachronic*) linguistics.
- Herman Paul in 1891: "It has been objected that there is another view of language possible than the historical. I must contradict this."

Reconstruction and the comparative method

- Historical linguists, aka *comparativists*, were mainly concerned with "reconstructing" the properties of the parent language of a group of languages that are believed to be genetically related.
- ***Reconstruction*** was done by means of the *comparative method*, whereby earlier forms were determined via the comparison of later forms.
- The earlier forms are called *proto-forms*, and the earlier language is called a *proto-language*.

Cognates

- The forms compared were typically words that were believed to have developed from the same ancestral root. They are called ***cognates***.
- Consider the following table of Germanic cognates:

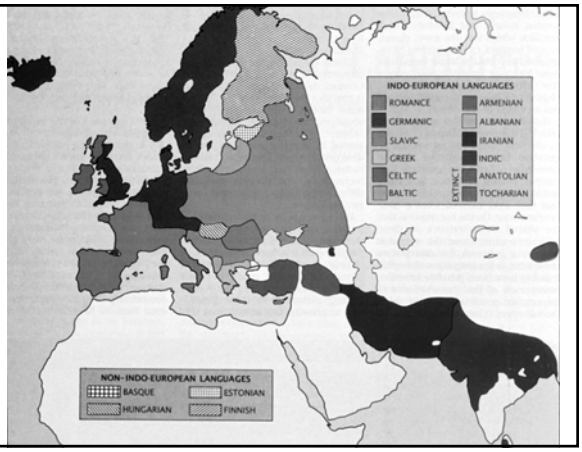
Cognates

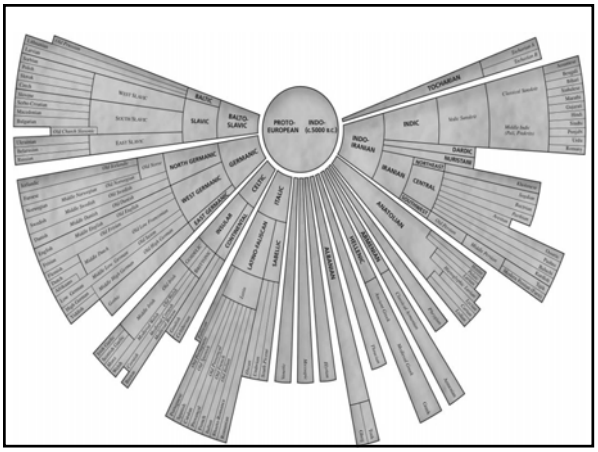
English	Dutch	German	Danish	Swedish
man	man	Mann	mand	man
foot	voet	Fuß	fod	fot
bring	brengen	bringen	bringe	bringa

- Compare Turkish "non-cognates":
  adam (man), *ajak* (foot), and *getir* (bring)

The discovery of Proto-Indo-European

- In 1786, Sir William Jones, a British judge and scholar working in India, noted that Sanskrit bore to Greek and Latin "a stronger affinity … than could possibly have been produced by accident," and he suggested that the three languages had "sprung from a common source".
- This common source is what came to be known later as "**Proto-Indo-European**" (PIE), the parent language of most of the languages spoken today in Europe, Persia, and northern India.





The discovery of Proto-Indo-European

- Thirty years later, a young Danish scholar, named Rasmus Rask, postulated general correspondences between the consonants of Germanic languages and those of Sanskrit, Greek, and Latin, noting for example that where the ancient languages showed a [p] sound, the corresponding words in the Germanic languages showed an [f].

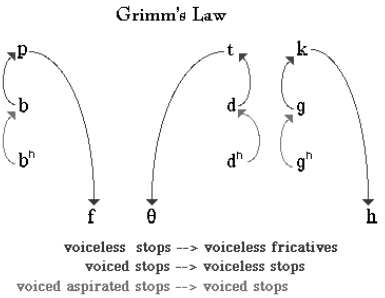
The discovery of Proto-Indo-European

Sanskrit	Latin	English
pitar-	**p**ater	**f**ather
pad-	**p**ed-	**f**oot
——	**p**iscis	**f**ish
pasu	**p**ecu	**f**ee

Grimm's Law

- In 1822, a German scholar, named Jakob Grimm, extended Rask's observations and provided a detailed exposition of the Germanic consonant shift that came to be known as *Grimm's Law*.
- The crucial observation was that where ancient languages showed a voiceless stop [p, t, k], Germanic languages like English and Gothic showed a corresponding fricative [f, θ, h]:

Grimm's Law



Grimm's Law

Sanskrit	Greek	Latin	Gothic	English
pad-	**p**od-	**p**ed-	**f**otus	**f**oot
trayas	**t**reis	**t**res	**th**reis	**th**ree
——	**k**ardia	**k**or	**h**airto	**h**eart

Grimm's Law (note * = proto)

PIE form	Sanskrit	Latin	English
*p	**p**itar-	**p**ater	**f**ather
*t	**t**rayas	**t**rés	**th**ree
*k	**ś**un	**c**anis	**h**ound
*b	No cognate	la**b**ium	li**p**
*d	**d**va	**d**uo	**t**wo
*g	a**j**ras	a**g**er	a**c**re
*bh	**bh**rā̆tar-	**fr**ā̆ter	**b**rother
*dh	**dh**ā̆	**f**ē̆-ci	**d**o
*gh	va**h**-	ve**h**-ō̆	wa**g**on

English words not affected by Grimm's Law

- Notice that some words in English were not affected by Grimm's Law:

Latin	English	
ped-	pedestrian	(no p → f)
tenuis	tenuos	(no t → θ)
canalis	canal	(no k → h)

- Any ideas why?

The second Germanic consonant shift

- A second consonant shift took place in some Germanic languages (e.g., Modern German), but not in others (e.g., Modern English):

Proto-sound	After vowels	Elsewhere
p	f	pf
t	s	ts
k	x	k
d	t	t

The second Germanic consonant shift

Modern English	Modern German
o**p**en	o**ff**en
path	**pf**ad
bi**t**e	bei**ss**en
to	**z**u (z = ts)
boo**k**	Bu**ch** (ch = x)
come	**k**ommen
ri**d**e	rei**t**en
door	**T**ür

So, how do we decide on the proto-form?

- Reconstruction of proto-forms makes use of two main strategies:
  a. the phonetic plausibility strategy
  b. the majority rules strategy.

The phonetic plausibility strategy

- The phonetic plausibility strategy requires that any sound changes posited to account for differences between proto-forms and later forms must be phonetically plausible.

Some phonetically plausible sound changes

- Voiceless sounds become voiced between vowels and before voiced consonants.
- Stops become fricatives, particularly between vowels.
- Consonants become palatalized before front vowels.
- Consonants become voiceless at the end of words.
- Oral vowels become nasalized before nasals.
- Fricatives become [h].
- [h] deletes between vowels.
- Stops become [ʔ].

The majority rules strategy

- The majority rules strategy stipulates that if no phonetically plausible change can account for the observed differences, then the sound found in the majority of cognates should be assumed to be the proto-sound.

Romance cognates

French	Italian	Spanish	Portuguese	
cher	caro	caro	caro	"dear"
champ	campo	campo	campo	"field"
chandelle	candela	candela	candeia	"candle"

- The regular sound correspondence for the initial sound is *ʃ-k-k-k*.
- Two hypotheses: (a) k → ʃ, or (b) ʃ → k.
  By phonetic plausibility, (a) wins.
  By majority rules, also (a) wins.
- Then, we do the same for every other sound in the cognates.

Next class agenda

- Why do languages change?
- Pidgins and Creoles: Follow the links on the syllabus table online for the reading materials. Also, Crystal's Encyclopedia has been on reserve.
- Hopefully, a brief discussion of language endangerment.