

24.900: Introduction to Linguistics
Language Change and Variation: 2
April 27, 2005

1. Squib due Wednesday, May 4, 9am
2. Review

(from *Contemporary Linguistics 7th Edition*: Chapter 7)

I. Some more examples of **borrowings** (as a vehicle of language change and variation)

A. French loan words in conjunction with native English words:

English origin	French origin
Cow	beef
Calf	veal
Sheep	mutton
Pig	pork

B. **Abstratum** influence: two languages are in contact and neither one is clearly politically or culturally dominant, for example, French and English in Montreal.

Montreal English	American English
Subvention	subsidy
Metro	subway
Autoroute	Highway

C. Beginning in 800AD, Scandinavians settled part of England. A abstratum relationship developed between English and Scandinavian.

Some loan words from Scandinavian:
Anger, cake, call, egg, fellow, gear, get, hit, husband, low, lump, raise, root,

score, seat, skill, skin, take, their, they, thrust, ugly, window, wing

D. Borrowed words from many other languages attest to various types of cultural contact and serve often to fill the lexical gaps such contact inevitably brings.

E. Although borrowing has been a very rich source of new words in English, it is noteworthy that loan words are least common among the most frequently used vocabulary items. This reflects a general tendency for highly frequent words to be relatively resistant to loss or substitution.

Some other lexical borrowings into English:	
Italian:	motto, artichoke, balcony, casino, malaria
Spanish:	comrade, tornado, cannibal, mosquito, banana, guitar, vigilante
German:	poodle, kindergarten, seminar, noodle, pretzel
Dutch:	sloop, cole slaw, smuggle, gin, cookie, boom
Slavic:	czar, tundra, polka, intelligentsia, robot
Hindi:	thug, punch (drink), shampoo, chintz

F. Loss of lexical items

Some OE lost through cultural change	
dolgbot	compensation for wounding
þeox	hunting spear
eafor goods	tenant obligation to the king to convey
flytime	a blood-letting instrument

II. Language Reconstruction

A. By systematically comparing languages at different levels, we can establish whether two or more languages descended from a common parent and are therefore **genetically related**.

B. The **comparative method** refers to the procedure of reconstructing earlier forms on the basis of a comparison of later forms. By means of such comparative reconstruction, we can reconstruct properties of the parent language with a great degree of certainty.

C. The most reliable sign of family relationships in the existence of **systematic phonetic correspondences** in the vocabulary items of different items.

Some Germanic cognates				
English	Dutch	German	Danish	Swedish
Man	man	Mann	mand	man
Hand	hand	Hand	hand	hand
Foot	voet	Fuß (β=s)	fod	fot
Bring	brenge	bringen	bringe	bringa
Summer	zomer	Sommer	sommer	sommar

D. Since the relationship between the phonological form of a word and its meaning is mostly arbitrary, the existence of systematic phonetic correspondences in the forms of two or more languages must point toward a common source.

E. Conversely, where languages are not related, their vocabulary items fail to show systematic similarities.

Some words in Turkish an Altaic language:	
Adam	man
El	hand
Ajak	foot
Getirmek	bring
Jaz	summer

F. Words that have descended from a common (as shown by systematic phonetic correspondences and usually semantic similarities) are called **cognates**.

- Cognates are not always as obvious as the Germanic examples above.
- Where languages from the same family are only distantly related, the systematic correspondences may be considerably less striking.

Some distantly related cognates compared to non-related Turkish			
NB: [y] is a high front rounded vowel			
English	Russian	Hindi	Turkish
Two	dva	do	iki
Three	tri	tin	ytʃ
Brother	brat	bhai	kardeş
Nose	nos	nahi	burun

G. Once the existence of a relationship between two or more languages has been established, an attempt can be made to reconstruct the common source.

H. This reconstructed language, or **protolanguage**, is made up of **protoforms**.

IV. Reconstruction strategies

a. Reconstruction of a protoform makes use of two general strategies:

1. The most important is the **phonetic plausibility strategy** which requires that any changes posited to

account for differences between the protoforms and later forms must be phonetically plausible.

2. **The Majority Rules strategy** stipulates that if no phonetically plausible change can account for the observed differences, then the segment found in the majority of cognates should be assumed.
3. **It is important to note that the first strategy always takes precedence over the second; the second is the last resort.**

Catalog of Sound Change	
<i>Sequential change</i>	
	Place and/or manner of articulation
	Palatalization/africation
Assimilation	Nasalization
	Umlaut
Dissimilation	
Epenthesis (segment addition)	
Methathesis (segment movement)	
	Vowel reduction
	Vowels
	Syncope
	Apocope
Weakening and deletion	
	Degimination
	Voicing
	Consonants
	Frication
	Rhotacism
	Deletion

C. Both reconstruction strategies favor Hypothesis A.

D. Most importantly, the phonetic change needed to account for the Rumanian pronunciation involves palatalization before [i].

E. Since palatalization in this context is a very common phenomenon in human language, it is reasonable to assume that it occurred in Rumanian.

F. It would be much more difficult to argue that the protolanguage contained [ʃ] before [i] and that three languages underwent the change posited by Hypothesis B since depalatalization before [i] would be an unusual process.

G. The reconstructed *s posited in Hypothesis A is also compatible with the majority rules strategy since three of the four languages in the data have [s] before [i].

H. Although there are factors that can confound our attempt to determine the relative plausibility of various sound changes, the changes listed in the following chart can be considered highly plausible. The chart also lists some plausible versus less plausible or even implausible changes.

Rule	Name of sound change
High probability	
t > tʃ / __i	palatalization/affrication
n > m / __b	assimilation (place of articulation)
t > d / V__V	voicing
k > Ø / V__st	consonant deletion
Low probability	
tʃ > t / __i	
m > n / __b	
d > t / V__V	
Ø > k / __st	

I. Reconstruction of Proto-romance of the word 'embankment.'

<i>Spanish</i>	<i>Sardinian</i>	<i>French</i>	<i>Portuguese</i>	<i>Rumanian</i>
Riba (β)	ripa	rive (ʁiv)	riba	ripa

1. Since the first two segments are the same in the cognate languages here, we can reconstruct Proto-Romance *r and *i on the basis of the majority rules strategy.

2. In the case of the second consonant there are differences among the cognates.

<i>Spanish</i>	<i>Sardinian</i>	<i>French</i>	<i>Portuguese</i>	<i>Rumanian</i>
-β-	-p-	-v-	-b-	-p-

3. It is important to think about phonetic plausibility. In the absence of any other evidence we will assume that one of the consonants in the chart above should be reconstructed as Proto-Romance. The challenge is to figure out which one.

<i>Changes based on phonetic plausibility</i>		
<i>Change in V__V</i>	<i>Name of change</i>	<i>Phonetic plausibility</i>
p>b	voicing	high

p>v	voicing (p>b) and frication (b>v)	high
p>β	{same as above}	high
b>p	devoicing	low
β>p		low
v>p		low

4. In terms of plausibility, the only possible reconstruction for Proto-romance is *p.
- Proto-romance *p underwent no change in Sardinian and Rumanian, but in Portuguese it underwent intervocalic voicing, and in Spanish it underwent both voicing and frication (weakening).
 - We assume that voicing preceded frication since Portuguese shows voicing but no frication.
 - If we assume that the final vowel of the protoform was still present in French when the consonant changes took place, we can conclude that voicing and frication occurred in this language as well.

Summary of the changes affecting Proto-Romance *p	
*p> p /V__V	no changes for Sardinian and Rumanian
*p> b /V__V	voicing in Portuguese
*p> b > β /V__V	voicing and frication in Spanish
*p> b > v /V__V	voicing and frication in French

V. The discovery of Indo-European

- a. In the late 18th century, linguists discovered that Sanskrit (an ancient language of India) was related to Latin, Greek, Germanic and Celtic.
- b. This discovery revolutionized European linguistic studies.
- c. Intensive historical comparative work was conducted and significant advances were made in linguistics in this area in the 19th century. Linguists

eventually ascertained that most of the languages of the Europe, Persia (Iran) and the northern part of India belong to a single family now called **Indo-European**. Much work has focused on the construction of **Proto-Indo-European**.

d. In 1822, Jakob Grimm became the first person to explain the relationship among cognates in various Indo-European languages in terms of a **sound shift**.

See the attached sheet for the sound shifts underlying Grimm's Law.

The sound shifts underlying Grimm's Law									
Proto-Indo-European	p	t	k	b	d	g	bh	dh	gh
Germanic	f	θ	x	p	t	k	b	d	g
NB: [x] undergoes a subsequent change to [h]									

e. Another important discovery was made by Karl Verner, who traced a group of exceptions to Grimm's Law to the original accentual patterns of PIE.

f. **Verner's Law** claimed that a voiceless fricative resulting from Grimm's law underwent voicing if the original PIE accent did not immediately precede it. Since stress came to be fixed in the root syllable in Germanic subsequent to the changes covered by Verner's Law, the original environment was obscured.

g. However, Sanskrit provides very direct evidence for Verner's claim since Sanskrit was conservative in maintenance of the original PIE accent.

Verner's Law

PIE	Sanskrit	Grimm's	Verner's	Gothic
*t	bhrata	*t>θ	_____	[bro: θar] 'brother'
*t	pita	*t>θ	θ > δ	[faðar] 'father'

Above, in the Gothic word for *brother*, PIE *t becomes [θ] according to Grimm's Law, whereas in the word for *father* it becomes [ð] in accordance with both Grimm's and Verner's Law.

CLASS EXERCISES:

A. Here are some sentences from 16th Century English along with their Modern English counterparts. Determine how negatives were formed.

1. A kinder gentleman treads not the Earth.
A kinder gentleman doesn't tread the earth.

2. Hate counsels not in such a quantity.
Hate doesn't counsel in such a quantity.

3. Clamber not you up to the casement then.
Don't climb up to the casement then.