LINGUISTICS 407
Historical Linguistics LECTURE #8

SOUND CHANGE

Sound change is an alteration in the phonetic shape of a sound as a result of a phonological process.

ME	**NE**
see [sæ:]	*sea*
wīf [wi:f]	*wife*
seen [se:n]	seen [si:n]
name [na:me]	name [nejm]
hūs [hu:s]	house [haws]
spon [spo:n]	spoon [spuwn]
ham [hɔ: m]	home [howm]

The NE forms are replacements of ME.

> Modifications that lead to the introduction of new phonemes in a language, to loss or realignments of old elements, are referred to as **sound changes**.
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> ↓
>
> this term is used only for events that result in *disruption* of the phonological system

If a phonological process is introduced into a language where it did not formerly occur, it may result in sound change.

Example: The OE velar stop [k] was palatalized to [t͡ʃ] before [i].

cidan [kidan] > *chide*

NOTE:
The introduction of a phonological process into a language cannot alone be considered sound change!!!

Example: int*er*esting [-təɹ-] or [-tɹ-]
We cannot assume that there has been sound change ə> Ø before liquids; for sound change to occur the basic form of the word must be permanently altered; no variation should occur!

The regularity of sound change

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every instance of the sound undergoes sound change

e.g., **every** OE k > t͡ʃ / _____ i

every OE ū > aw
OE *hūs* > NE *house* [aw]
mūs > NE *mouse*
lūs > NE *louse*

Types of sound change

The development of OE ū > NE *aw* is an example of **unconditioned sound change.**

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sound change affecting every occurrence of a sound so that no conditioning factor can be identified

The development of OE *k* > NE t͡ʃ / _____ *i* is a **conditioned sound change**

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sound change that affects sounds in certain identifiable phonetic environments

Most common unconditioned sound changes:

monophthongization, e.g., ME *rɪwdə* > NE *rude*
ME *nɪwə* > NE *new*

diphthongization, e.g., OE *hūs* > NE *house* [aw]
mūs > NE *mouse*
lūs > NE *louse*

raising/lowering, e.g., ME *nōn* > NE *noon* [u]

backing/fronting, e.g., at the beginning of NE period *a* > *æ* in words such as *calf*, *path* etc.

Most common conditioned sound changes: assimilation, dissimilation, deletion (syllable structure processes or weakening processes), insertion (syllable structure processes).

Phonetic and phonemic sound change

Phonetic changes refer to a change in pronunciation of allophones which has no effect on the phonemic system of the language.

Example: ME *p, t, k* > NE p^h t^h k^h

This sound change altered the pronunciation of the stop phonemes by adding one allophone to each phoneme, *but the phonemic system of English has remained unaffected*!

Phonemic changes refer to sound changes which change the phonological system of a language.

Example: in OE /f/ had one allophone: [f], until about 700 A.D. At this time f > v / V_____V
Later borrowings from French containing *v* were pronounced with *v* instead of *f,* since the voiced sound already had occurred in the language → a new phoneme has been introduced!

The patterns of sound change

Merger: see Lecture #6 (in relation to limitations of internal reconstructions)

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Replacement of two or more contrastive segments by a single segment.

Absolute merger: the total loss of phonological distinction.

Absolute merger is unrecoverable through internal reconstruction, unless one of the segments itself functioned to condition a change that preceded the merger -- this is the case of the Skt. merger of *e* and *a* : the merger is unconditioned, but the earlier existence of *e* is indicated by its effect on preceding velar stops -- e.g., the perfect of the root *kr* 'make' is *cakara* -- palatalization, from a following front vowel (see Lecture #4).

Example of unrecoverable absolute merger:
There are four vowels reconstructed for PGmc: **i *e *u *a* ; PIE had five vowels: **i *e *u *o *a*. Gmc. lost the distinction between **o* and **a*. The merger was unconditional, and there is no trace of evidence in Gmc. that *a* reflects two earlier distinct segments. Thus, from internal reconstruction alone it is impossible to recover the vowel system from which Gmc. vowels are derived.

Study 10.14, p. 205.

Split: replacement of a single distinctive segment by two or more segments in different phonetic contexts.

Conditioned merger necessarily coincides with phonetic split. If some allophones of a phoneme /x/ merge with /y/, a conditioned split in /x/ has occurred. This phenomenon is termed **primary split:**

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sound change affecting some allophones of a phoneme, which merge with another phoneme. No new phoneme is added to the sound system.

Example: Pre- Latin /s/ and /r/ phonemes remain distinct in Classical Latin, except in intervocalic position: s > r / V___ V (probably via *z*). Thus the phoneme /s/ splits into [s] and [r] while a merger occurs with the phoneme /r/.

Secondary split results from a change in the conditioning features of allophones.

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sound change whereby conditioned allophones of a phoneme become independent phonemes as a result of a change in the environment that served to condition the occurrence of that allophone.

Example: Skt velar stops become palatal affricates in the environment of front vowels (see the Skr reduplication example in Lecture #4)

Thus, Skt *k* splits into *k* and *c* [t͡ʃ]. But, subsequently the front vowel *e* merged with *a* and *o* as *a*, with the result that tokens of the phoneme /t͡ʃ/ come to occur in a non-palatal environment.

Skt *ca* 'and' < *ke (< *k^{w}e) is distinguished from the root *ka* 'who' < *ko (< k^{w}o)

A change elsewhere in the system has given phonemic status to a segment introduced into the system as an allophone.

PROTO-INDO-EUROPEAN PHONOLOGICAL PROCESSES LEADING TO SOUND CHANGES

1. Voicing assimilation

   In consonant clusters, the first consonant assimilated to the second; most frequently, the second consonant was voiceless.

Example: *leg-tó- 'chosen' > lek-tó (~ Gk. lektós)

Less commonly, the second consonant was voiced:

Example: *pro-pd-o- (< ped- 'foot') > *pro-bd-o (~ Avestan frab-da)
'front of the foot'

Progressive assimilation in PIE: Bartholomae's Law

If a voiced aspirate was followed by a voiceless unaspirated stop, the aspiration moved to the end of the cluster and the voiceless consonant became voiced (was this a PIE process? This is still a controversial issue).

Example: PIE *ght > gdh (~ Ved mugdhá- 'dazed')

Study 3.34-3.35, p. 69. and 10.6 on p. 203.

2. Sibilant insertion

A sibilant was inserted between two dentals – a common occurrence when a root-final dental was followed by a suffix with an initial *t* or *d*.

Example: PIE * $h_1$ed-te 'eat' > * $h_1$et-te (voicing assimilation) > * $h_1$etste (~Old Hittite e:zten [étsten].

Study 3.36, p. 69.

3. **ss* simplification

When the root-final *s* was followed by a suffix with an initial *s*, *ss > *s.

Example: *$h_1$es-si 'you are' > $h_1$esi (~Ve ási)

Study 3.37, p. 70.

4a. Stang's Law

Word-final consonant clusters containing a resonant simplified – causing compensatory lengthening of the preceding short vowel.

Example: PIE * dieum > *die: m 'sky' Acc. Sg. (~Ved Skr. dya:m)
PIE *g^woum > * g^wo:m 'cow' Acc.Sg. (~Ved Skr. ga:m)

4b. Szemerényi's Law

PIE *-VRs > *-V:R (*R* is a resonant)

Example: PIE *kuons 'dog' > *kuon (~ Gk. kuo:n)

Study 3.38, p. 70.

5. The *Boukolos Rule*: Dissimilation

A labiovelar lost its labial component when adjacent to the vowel **u.*

Example: PIE * g^{w}ou-k^{w}olos > g^{w}ou-kolos (~Gk. bou-kolos 'cowherd')

Study 3.39, p. 70.

6. Additional processes:

a. word-final stops were neutralized (not certain whether they occurred voiced or voiceless -- the latter (a lenition process) is more plausible – why?
b. Word-final *-n was deleted after long *o*.

Example: PIE *kuon > *kuo: (~ Old Irish cú)

Study 3.40, p. 70.

There have been several other processes identified; their PIE occurrences, however, are uncertain – many could be considered independent developments:

Study 3.41, pp. 70-71. Comment!