

0. Announcements

- Office hours are switched to Tuesdays from 3-5, or by appointment;
- Assignment 2 will be assigned this Thursday, and due Thursday, February 18th;
- Exam 1 scheduled for Thursday, March 11th;
- Read: Analogy chapter from Campbell; “Morphological Change” (Trask 1996).

1. From Last Time: Symmetry and Phonological Change

Across languages, we find a strong preference both for symmetry in phonemic systems (e.g., obstruents occur in voiced/voiceless pairs, vowels come in front-back pairs), as well as maximization of phonological space (e.g., *i,u,a* preferred to *i,o,a*.)

These preferences appear to drive changes in phonological systems. We saw this last time in observing chain shifts. Changes in the obstruent system of English also seem to reflect these preferences:

Old English had contrasting voiceless and voiced plosives and affricates:

- (1) /p t k b d g tʃ dʒ/

But only voiceless fricatives:

- (2) /f θ s ʃ h/

Most of the voiceless fricatives had voiced allophones between vowels, but there were no contrasting voiced fricatives.

In the Middle English (ME) period (1150-1500), English acquired /v/ as a phoneme as a result of borrowings from French, which permitted [v] in word-initial position, e.g., *very, view, voice*. This new fricative disrupted the symmetry of the system, since now there was a voicing contrast for fricatives in just one position: /f/ ~ /v/.

Over the next few centuries, the rest of the voiced fricatives also became phonemic. English acquired /ʒ/ in loanwords from French, and /θ/ and /s/ split into contrasting voiceless and voiced phonemes:

- (3) /f θ s ʃ h/
/v ð z ʒ /

Interestingly, the contrast between the inter-dental fricatives carries a very low functional load; we hardly ever use this contrast to distinguish words (try to think of minimal pairs.) It may be that the distinction is retained for the sake of symmetry.

2. Is Sound Change Regular? (based on Trask 1996)

Metathesis is almost always sporadic.

Other changes seem to be completely regular, applying to every word. For example, in London vernacular English, /t/ word-initially is pronounced as [ts]. Similarly, American English speakers regularly tap /t/ between vowels, e.g., *butter*.

However, it is too much to say that “ordinary” sound changes are always regular. Latin *strata* ‘street’ and *lacu* ‘lake’ became Italian *strada* and *lago*, with intervocalic voicing, but the majority of Italian words do not show this change: Latin *ficu* ‘fig’ > Italian *fico*, not **figo*.

Strategy: Adopt the assumption that sound change is regular, and look for other explanations in cases that appear not to be regular.

3. Two Types of Split (data from Trask 1996)

Secondary split = one phoneme divides into two phonemes. Affects the number of phonemes in the language. Example:

- (4) Split of Old English /k/

Stage 1	‘cat’ /katt/ [katt]	‘chaff’ /keaff/ [keaff]	‘chin’ /kinn/ [kinn]
Stage 2	/katt/ [katt]	/keaff/ [tʃeaff]	/kinn/ [tʃinn]
Stage 3	/katt/ [katt]	/tʃaff/ [tʃaff]	/kinn/ [tʃinn]

Primary split = one phoneme's allophone merges with another phoneme. Does not affect the number of phonemes in the language. Example:

(5) Split of Latin /s/

Stage 1	'dear' (fem.) /ka:ra/ [ka:ra]	'flower' /flo:s/ [flo:s]	'flowers' /flo:ses/ [flo:ses]
Stage 2	/ka:ra/ [ka:ra]	/flo:s/ [flo:s]	/flo:ses/ [flo:res]
Stage 3	/ka:ra/ [ka:ra]	/flo:s/ [flo:s]	/flo:res/ [flo:res]

Latin DOES however have a number of words with intervocalic /s/, e.g., *causa* 'cause', *esox* 'salmon', *ecclēsia* 'assembly'. But these cases have explanations:

Some of these words didn't have /s/ at the time: *causa* 'thing' in Old Latin is *caussa*, with a geminate /ss/. The geminate then lenited to /s/.

Some entered Latin **after** the change occurred. Latin rhotacism /s/ was completed by the fourth century BC. *Ecclēsia* 'assembly' was borrowed from Greek first century BC, and *esox* 'salmon' was borrowed probably from a Celtic language.

Two points to take from this:

-A sound change normally happens at some particular time in the history of a language, and then stops. As a result, the effects of earlier changes may be obscured by later changes (including borrowings.)

-Assuming that sound change is regular is fruitful; by insisting on regularity, it is necessary to look for explanations for exceptions, which has often been successful.

4. Change as Change in Rule Systems

4.1 Yiddish Final Devoicing (Odden 2005)

Old High German (OHG) > Middle High German (MHG) > Yiddish, German

In OHG, words could end in a voiced obstruent:

(6)	<i>tag</i>	'day'	<i>taga</i>	'days'
	<i>gab</i>	'he gave'	<i>gābumes</i>	'we gave'
	<i>sneid</i>	'he cut'	<i>snīdan</i>	'to cut'

During the time of MHG (900-1200), word-final devoicing was introduced:

(7)	<i>tac</i>	'day'	<i>tage</i>	'days'
	<i>gap</i>	'he gave'	<i>gāben</i>	'we gave'
	<i>sneit</i>	'he cut'	<i>snīdan</i>	'to cut'
	<i>hant</i>	'hand'	<i>hende</i>	'hands'
	<i>wec</i>	'way'	<i>weges</i>	'ways'

German still retains this rule. Yiddish, in contrast, has voiced word-final obstruents:

(8)	<i>tog</i>	'day'	<i>tog-n</i>	'days'
	<i>veg</i>	'way'	<i>vegn</i>	'ways'

The rule thus appears to be lost for Yiddish. There are what at first appear to be mysterious exceptions, however:

(9)	<i>gelt</i>	'money'
	<i>avek</i>	'away'

Why might these forms behave differently?

4.2 Dialects of Basque

Assume that the definite suffix is underlyingly /-a/, and answer the questions below.

Baztan Basque

<u>noun</u>	<u>definite</u>	
sagar	sagara	'apple'
gison	gisona	'man'
buzten	buztena	'tail'
čakur	čakure	'dog'
mutil	mutile	'boy'
egun	egune	'day'
iku	ikue	'fig'
mendi	mendie	'mountain'
buru	burue	'head'
eče	ečia	'house'
ašto	aštua	'donkey'

- (10) Posit two rules to account for the alternations in the data.
- (11) Are your rules crucially ordered? If yes, how?
- (12) Show how these apply to [mendie] 'mountain' and [aštua] 'donkey'.

Biscayan Basque. Again assume that the definite suffix is /-a/.

<u>noun</u>	<u>definite</u>	
sagar	sagara	'apple'
gison	gisona	'man'
buzten	buztena	'tail'
čakur	čakure	'dog'
mutil	mutile	'boy'
iku	ikuwe	'fig'
mendi	mendiye	'mountain'
buru	buruwe	'head'
ari	ariye	'thread'
ate	atie	'door'
asto	astue	'donkey'

- (13) Posit three phonological changes to account for the alternations in the data above. Some may be the same as you posited in (10) above.
- (14) Are your rules crucially ordered? If yes, how?
- (15) Show how these rules apply to [buruwe] 'thread' and [atie] 'door'.

References

Trask, R.L. 1996. *Historical Linguistics*. New York: Oxford University Press.
Odden, D. 2005. *Introducing Phonology*. Cambridge: Cambridge University Press.