Kinds of sound change

SPLIT

- Sans. s > ş /r,u,k,i,j_

   agni 'fire' + *su* 'loc.pl.' > *agnişu* 'between the fires'

   vāk 'word' + *su* 'loc.pl.' > *vākşu* 'between the words'

   (ruki is also found in Avestan, Lithuanian and Old Church Slavonic)

SPLIT

- f > h word-initially in Spanish:

farīna > harina 'flour'

fabulāri > hablar 'speak'

focus > fuego 'fire'

fructus > fruto 'fruit'

SPLIT

- Lat. k > Fr. s, ʃ, k:

centum ['kentũ] 'hundred' > cent [sã]

cantāre [kan'taːre] > chanter [ʃãte] 'to sing'

clārus ['klaːrus] > claire [klɛːʀ] 'light, clear'

cor [kor] > coeur [kœːʀ] 'heart'

MERGER: Spanish "yeísmo"

pollo 'chicken' vs. *poyo* 'stone bench'

se cayó (al suelo) *pero no se calló* (siguió hablando)
'he fell but he did not stop talking'.

MERGER

- Spanish <v> /β/, /v/ > /b/ [b, β]:

  ventana 'window', *vaca* 'cow', *calvario* 'Calvary', *clavo* 'nail'

  vs.

  botón 'button', *bolsa* 'bag', *nabo* 'turnip'

MERGER: Non-high Vs in Sanskrit, a, e, o > a.

PIE	PII	Sanskrit	Avestan	Latin	
*ḱm̥tóm	*ĉatám	*śatám*	*satəm*	*centu*	'hundred'
*ǵónu	*ĵā́nu	*jā́nu*	*zānu*	*genū*	'knee'
*ǵʰéi-mn̥	*ĵʰimá-	*himá-*	*zima-*	*hiems*	'winter'/ 'snow'
*kʷó-	*ká-	*ká-*	*kō*	*quis*	'who?, what?'
*gʷou-	*gau-	*go*	*gau-*	*bōs, bov-*	'cow'
*gʷʰormó-	*gʰarmá-	*gharmá-*	*garəma-*	*formus*	'warmth, heat'
*wĺ̥kʷo-	*wŕ̥ka-	*vŕ̥ka-*	*vəhrka-*	*lupus*	'wolf'

CONDITIONED MERGER: Latin rhotacism

- Proto-Italic *s > Latin r /V_V

rūs 'field', *rūsticus* vs. *rūralis*

opus vs. *opera* 'work(s)'

corpus vs. *corpora* 'body(ies)'

pūs vs. *pūrulentus* 'pus, purulent'

flōs, flōris 'flower'

honōs, honōris 'honor'

CONDITIONED MERGER: Intervocalic voicing

- /p,t,k/ > /b,d,g/ /V_V in Spanish

Lat. *apothēca* > Sp. *bodega* 'wine cellar'

Lat. *capanna* > Sp. *cabaña* 'shed'

Lat. *pater* > Sp. *padre* 'father'

Total local regressive assimilation

Lat. octō, nocte, factō

\>

It. otto 'eight', notte 'night', fatto 'done'

Total local progressive assimilation

PIE *kolnis > Lat. *collis* 'hill'

Aqu. *Ombe* > Old Basq. *umme* 'boy'

Aqu. *sembe* > *semme > *seme* 'son'

Partial local regressive assimilation

PIE *swep-no > Lat. *somnus* 'dream'

Sp. *imposible, inteligente, increíble*

Sp. *mizmo, dezde*

Partial local progressive assimilation

Basque palatalization:

laiño 'cloud'

iñor 'no one'

illargi 'moon'

illun 'dark'

iñddar 'strength'

Distant (regressive) assimilation

PIE *penkʷe > Lat. *kʷinkʷe* 'five'

umlaut: PG *gastiz > Old Eng. *ġiest* 'guest'

Regressive dissimilation

Lat. *peregrīnus* > It. *pellegrino*, Fr. *pèlerin* 'pilgrim'.

Grassmann's Law:

Pre-Greek *thrikh-s > Gr. *thriks* vs. *thrikh-os > *trikhos* 'hair (nom/gen)'

Pre-Greek *threph-s-ō > Gr. *threpsō* vs. *threph-ō > *trephō* 'I (will) rear'

Progressive dissimilation

Lat. *arbor* > Sp. *árbol* 'tree'.

Suff. *-al*: *sōlāris, lūnāris* (cf. *boreālis, austrālis*).

Local dissimilation

Lat. *hominem, nōminem, fémina*

\>

*omne, *nomne, *emna

\>

omre, nomre, emra

\>

Sp. *hombre* 'man', *nombre* 'name', *hembra* 'female'

Vowel shifts

- **Lowering**: Pre-Fr. *[vĩ] > Fr. *vin* [vɛ̃] 'wine'.
- **Raising**: Old Eng. *ham* [hɑːm] > Mod. Eng. *home* [hoːm] (RP [həʊm]) 'home'
- **Fronting**: Basque *zu* > Zub. Basq. *zü* [zy] 'you'.
- **Backing**: Old Pre-Eng. *dægas > Old Eng. *dagas* 'days'.
- **Rounding**: Early Mod. Eng. *water* [watər] > Mod. Eng. *water* [wɒtə].
- **Unrounding**: Ger. *Bücher* [byxə] vs. Lux. *Bicher* [bɪʃə] (OHG. [bøxər]) 'books'. Zub. Basq. *mündü, mündia* '(the) world'.

Deletion

- **Aphaeresis**: Lat. *apothēca* > Sp. *bodega*, Sp. *ahorita* > Mex. Sp. *horita*, *acaso* > *caso* 'perhaps', *episcopal* > *piscopal* 'of the bishop'.

- **Syncope**: Lat. *comparāre* > Sp. *comprar*, *fabulāre* > *fablar*, Lat. *populu*(*m*) > Fr. *peuple*, Sp. *pueblo* 'people', Lat. *homine* > Rom. *omne.

- **Apocope**: In Spanish, Lat. -*e* is dropped after a dental (l, r, n, s, θ) or yod: *pane* 'bread', *sole* 'sun', *sūdāre* 'sweat'.

  Old Eng. *sticca* > Mod. *stick*, *sunu* > *son*, *mōna* > *moon*.

Insertion

- **Prothesis:** Lat. *spatham* > Sp. *espada, spīritum* > *espíritu, schola* > *escuela, scūtum* > *escudo*.

- **Epenthesis**: Fr. *messager, passager* > Eng. *messenger, passenger*...

- **Anaptyxis**: Lat. *calvāria* > Sp. *calavera*, Proto-Slavic *gordŭ 'town' > Rus. *gorod*, Lat. *libru*(*m*) >> Basq. *liburu*. [Rihanna *úmberélla*, Bush *nucular*].

- **Excrescence**: Eng. *something* > *somepthing*, Lat. *tremulare* > Fr. *trembler* 'to tremble', Lat. *fēmina* > Sp. *hembra, hominem, nomināre*...

- **Paragoge**: Eng. (*Inter*)*net* >> Fin. *netti*, Basq. *Parise, Akize, Miarritze, Pabe, Bordele*...

Diphthongization

- Proto-Romance stressed *ɛ, *ɔ regularly became diphthongs in Spanish: *pɛtra, *tɛmpo, *bɛne, *bɔno, *lɔco, etc.

- Old Eng. breaking: a > ea, e > eo, i > io /_{r,l}C

*kald > *ceald* 'cold', *erθe > *eorþe* 'earth', *nǣh > *nēah* 'near', *sæh > *seah*, 'saw', etc.

Diphthongization

- Old Norse breaking: e > ea > ia /_(C)Ca, e > eo > io /_(C)Cu (with V-loss)

*heldaz > *hialdr* 'battle', *erþu > *iɔ̄rþ* 'earth', etc.

- Proto-western-Nilotic > Mabaan:

*i > ie, *u > uʌ, *ɛ > iɛ, *ɔ > ua; *ii > iie, *uu > uuʌ, *ɛɛ > iiɛ, *ɔɔ > uua

Monophthongization

Lat. *aurum* > Sp. *oro* 'gold'

taurum > *toro* 'bull'

causa > *cosa* 'thing'

Old Fr. *eux* [ew] > [ø] 'them'

aube [awb] > [oːb] 'dawn'

Chain shifts: English Great Vowel Shift
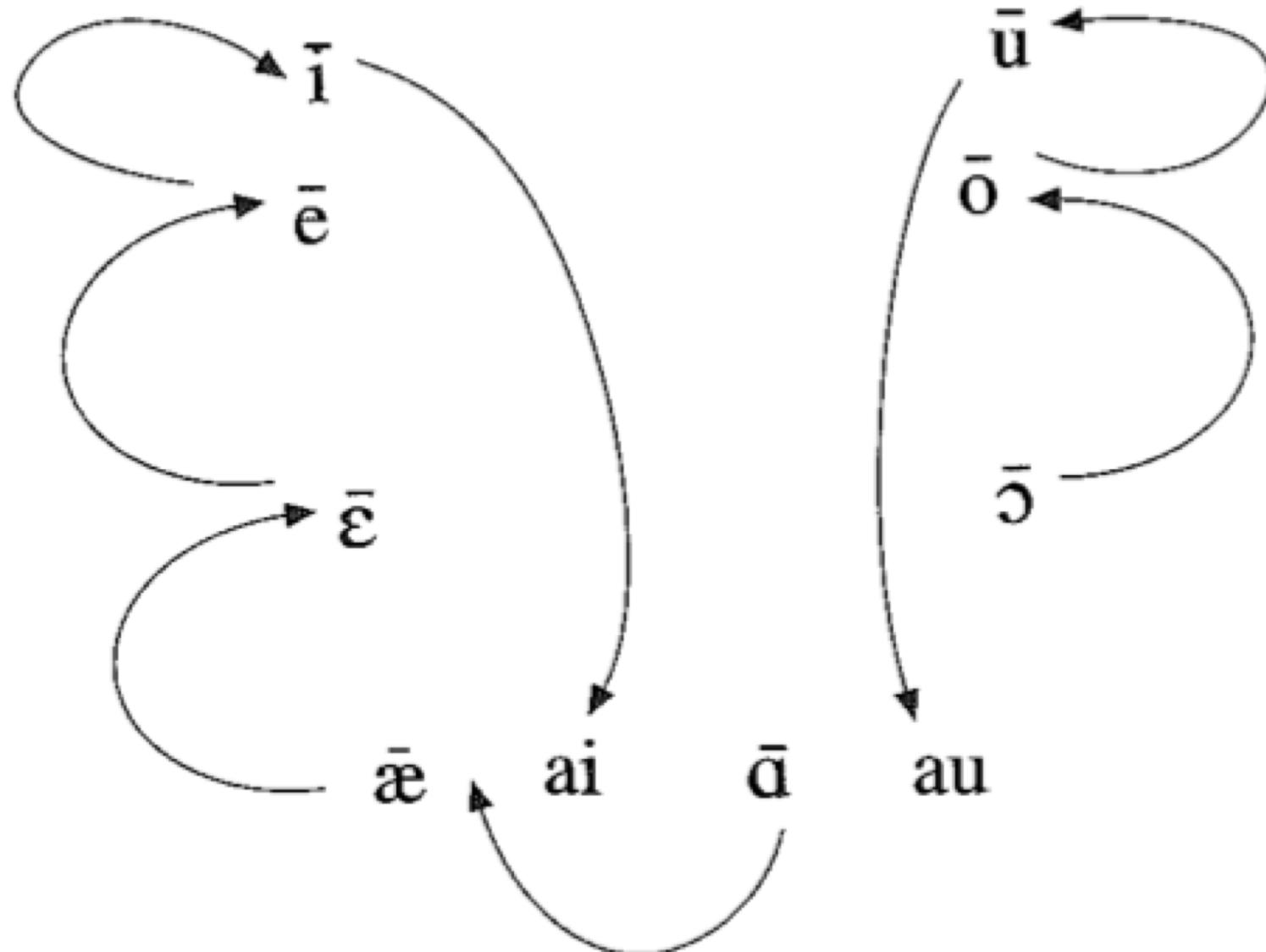
Chain shifts: English Great Vowel Shift

- GVS, long vowels of Middle Eng. aː → eː → iː → aɪ (Ringe & Eska 2013: 91)

c. 1400		c. 1500	
biːtə	>	bəit	'bite'
beːt	>	biːt	'beet'
bɛːtə	>	beːt	'beat'
abaːtə	>	abaːt (> abɛːt)	'abate'
bɔːt	>	boːt	'boat'
boːt	>	buːt	'boot'
abuːtə	>	abəut	'about'

Lenition

- Typical lenition paths of long /tː/ (Ringe & Eska 2013: 84)

$$
\begin{array}{ccccccc}
 & & & & & & \varnothing \\
 & & & & & & \uparrow \\
 & & & & & & ? \\
 & & & & & & \uparrow \\
\text{tː} & \rightarrow & \text{t} & \rightarrow & \text{d} & \rightarrow & \text{ɾ} \\
 & & \downarrow & & \downarrow & & \downarrow \\
 & & \theta, \text{s} & \rightarrow & \text{ð, z} & \rightarrow & \text{ɹ} \\
 & & \downarrow & & & & \downarrow \\
 & & \text{h} & \rightarrow & \rightarrow & \rightarrow & \varnothing
\end{array}
$$
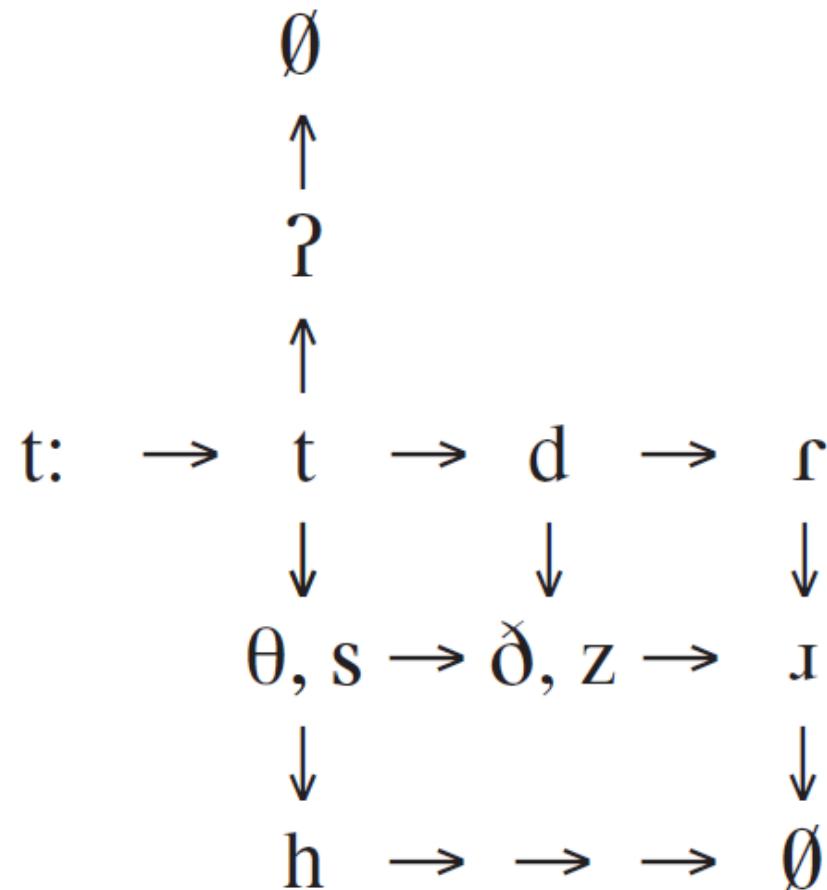
Lenition

Mande   *kun   'head'   >   Mandigo   *kun*

                                            >   Susu   *xuni*

                                            >   Kpelle   *wu(n)*

Voicing

Lat. *lupu*(*m*) > Sp. *lobo* 'wolve'

uīta > *vida* 'life'

fīcu(*m*) > *higo* 'fig'

Fortition

- Biali (Oti-Volta Oriental, Gur) (Dimmendaal 2011)

*jãã > *ȷ̃ãã > *ɲãã̃ 'drink'
*jã > *ȷ̃ã > *ɲã̃ 'know'

Devoicing

- German *Auslautverhärtung*:

Tag [taːg̊]/[taːk] vs. *Tage* [taːgə] 'day'

Bad [baːt] vs. *Bäder* [ˈbɛːdɐ] 'bathroom'

Maus [maʊ̯s] vs. *Mäuse* [ˈmɔɣzə] 'mouse'

Palatalization

- Basque palatalization:

<div align="center">

laiño 'cloud'

iñor 'no one'

illargi 'moon'

illun 'dark'

</div>

- Coll. Eng. t+y [j] > [tʃ]:

<div align="center">

Watcha doing?

I betcha!

Didja know?

</div>

Nasalization

Fr. *bon* 'good' [bõn] > [bõ] > /bõ/

Fr. *vin* 'wine' [vĩn] > *[vĩ] > [vɛ̃]

rein 'kidney' [rẽn] > [ʀɛ̃] > /ʀɛ̃/

Rhotacism

- Proto-Italic *s > Latin r /V_V

<div align="center">

rūs 'field', *rūsticus* vs. *rūralis*

opus vs. *opera* 'work(s)'

corpus vs. *corpora* 'body(ies)'

pūs vs. *pūrulentus* 'pus, purulent'

flōs, flōris 'flower'

honōs, honōris 'honor'

</div>

Rhotacism

- Proto-Nilotic *s > Western Nilotic r

*sʊɗ	'rub'			(Proto-Nilotic)
	>	*rʊɗɔ*	'rub'	(Dho Alur; Western Nilotic)
	>	*suuti*	'rub'	(Päkoot; Southern Nilotic)
*sɔc				(Proto-Nilotic)
	>	*rɔc*	'stop up'	(Shilluk)
	>	*sɔɔc*	'prop up'	(Päkoot; Southern Nilotic)
*sac	'err'			(Proto-Nilotic)
	>	*rac*	'sin'	(Shilluk)
	>	*saac*	'seduce'	(Kipsikiis; Southern Nilotic)
	>	*sɛc*	'sin, err'	(Turkana; Eastern Nilotic)

Assibilation

- Proto-Eastern Cushitic

  *kebeel- > Somali *sabeel* 'leopard'

- Proto-Finnic *ti > t͡si > si:

  Fin. *kieltää* 'to deny' → *kielti ~ kielsi* 's/he denied'

  vesi 'water' vs. *vete-nä* 'as water'

  Fin. *sika*, Std. North Est. *siga*, cf. South Est. *tsiga* 'pig'

Assibilation

- German /t/ > /t͡s/ > /ss/:

  essen, dass, aus, Wasser

  cf. Eng. *eat, that, out, water*
  Dutch *eten, dat, uit, water*
  Sw. *äta, det, ut, vatten*
  Nor. *ete, det, ut, vann/vatn*

Spirantization or fricativization

- Spanish

$$\text{Lat. } apoth\bar{e}ca > bodega > [\text{bo'ðeɣa}]$$

- Bantu *pi > fi > si (Dimmendaal 2011: 25-26)

Proto-Bantu		Kimbu	Swahili	Luganda	Gloss
*-pígò	>	*m-pigo*	*figo*	*en-sigo*	'kidney'
*-piga	>	*ama-piga*	*figa*	*es-siga*	'firestone'

Gemination

- Proto-Eastern Cushitic > Oromo

*gatn- 'rainy season' > *gann-a* 'rainy season'

*luk'm- 'neck' > *lumm-ee* 'neck of ox'

- Col. English:

let me > lemme

give me > gimme

good boy > goobboy

Degemination

Pre-West-Rift	>	Proto-West-Rift	
*follit	>	*folit	'dig'
*xayya	>	*xaya	'he comes'
*hhaddoo	>	*hhadoo	'sticks'
*sliffoo	>	*slifoo	'lips'

Metathesis

Standard Spanish	Istanbul Judeo-Spanish	
tarde	['taðre]	'evening'
bastardo	[bas'taðro]	'bastard'
verdura	[be'ðrura]	'verdure'
cuerda	['kweðra]	'cord'
cordero	[ko'ðrero]	'lamb'
sordo	['soðro]	'deaf'
por amor de	[para'moðre(ðe)]	'for the love of'

Haplology

Eng. *pacificism* > *pacifism* (cf. *misticism*)

Eng. *humblely* > *humbly*

coll. Eng. *library* > *libry* [laibri]

probably > *proly* [prɔli]

Rhinoglottophilia

- Proto-Indo-Iranian *s normally becomes h in Avestan, but becomes a velar nasal between a/ā and r, i̯, u̯ or a/ā:

    aŋra 'evil' < Sanskrit *asra*

    aŋhaṯ 'he may be' < Sans. *ásat*

    vaṅhō 'better' < Sans. *vasyas*

Rhinoglottophilia

- Basque nasal aspiration (*n > h̃ /V_V)

 ahari /ah̃ari/   <   *anari   'ram'

 ihi /ih̃i/   <   *ini   'rush, reed'

 ihes /ih̃es̺/   <   *enes   'to escape, run away'

 sehi /s̺eh̃i/   <   *seni 'servant' (cf. Mod. B. *sein* /s̺ei̯n̺/ 'boy')

 uhure (Std. Bsq. *ohore*) /uh̃ure/ <<   *honōre*(*m*)   'honor'

 ahate /ah̃ate/   <<   *anăte*(*m*)   'duck'

 pühüllü /pyh̃yʎy/   << *faeniculu*, *fenu(i)clu   'fennel'

Stress shifts

- A particular word or set of words:

  e.g. Spanish *mió > mío*

  stressed imperatives in Basque

- A class or group:

  Proparoxytones becoming paroxytones in Gascon

- Reinterpreted as counted from the opposite edge:

  gizóna 'the man', *alhába* 'daughter', *etxéa* 'the house'

  +2   >   -2

Tonogenesis

Stage I	*Stage II*	*Stage III*
pá [—]	pá [—]	pá [—]
ɓá [⌐]	ɓǎ [⟋]	pǎ [⟋]
'intrinsic'	'extrinsic'	'phonemic'

Tonogenesis

- Afrikaans (Coetzee et al 2014, 2019):

	bak 'bake'	*pak* 'pack'
Traditional (voicing)	[bɑk]	[pɑk]
New (f0)	[pàk]	[pák]

Tonogenesis - Vietnamese (Haudricourt 1954)

- **1st century**   **CV/Final nasal**   **Final *s > h**   **Final *T > /ʔ/**

  pa   *pas > pah*   *paT > paʔ*

  ba   *bas > bah*   *baT > baʔ*

- **End of the 6th c.**   **Level**   **Falling**   **Rising**

  pā   *pâ*   *pǎ*

  bā   *bâ*   *bǎ*

- **12th century**   **Level**   **Falling**   **Rising**

  pa "ngang"   *pǎ* "sắc"   *paả* "hỏi"

  pà "huyền"   *pạ* "nặng"   *pã* "ngã"

Accentogenesis