3. SOUND CHANGE

3.1. Introduction: evidence for sound change; factors motivating sound change; conditioned and unconditioned change; types of sound change; sound changes affecting vowels; changes that alter the system.

3.2. Examples of sound change in the history of English and their orthographic consequences.

3.2.1. Changes in vowels.
3.2.2. Changes in the consonant system.

3. SOUND CHANGE

Sound change → "umbrella term for a wide variety of changes. Its processes may affect single sound segments (vowels or consonants), combinations of sounds such as consonant clusters and diphthongs, prosodic features such as rhythm, stress and intonation, as well as underlie large-scale sound shifts" (Singh 2005: 6).

3.1. Introduction

3.1.1. Evidence for sound change

Determining the sounds of a form of the language no longer spoken is a kind of detective work, where a variety of clues must be pieced together:

- The statements of contemporary grammarians, lexicographers and other writers.
- Puns, word plays, and rhymes in the literature (though these must be used with caution, since the sounds of words entering these combinations may not correspond exactly, as in slant rhymes [near rhymes] and eye rhymes [imperfect rhymes in which two words are spelt similarly but pronounced differently]).
- The representation of natural sounds in onomatopoeic words (though, again, caution is needed here because these words are at least partially conventionalized).
- Scribal variations and non-standard spellings that often reflect actual pronunciations.
- The development of a sound in closely related languages; for example, we can use French, Spanish and Italian to extrapolate the nature of a sound in the parent language, Latin.
- The structure of the hypothesized phonological system, for we assume that such a system will be like modern sound systems in, for example, tending towards symmetry, pairing voiced and voiceless consonants or back and front vowels. (Brinton and Arnovik 2006: 64)

3.1.2. Factors motivating sound change

> Change is never one-dimensional. At any one time, languages are being influenced by a network of intersecting pressures that work to bring about change: physiological (the production of language), systemic (the linguistic system with interacting components, psychological (the mental make-up of speakers), social and political (the speech community and the individual, the socio-political environment) and external (contact and borrowing). (Burridge & Bergs 2017: 97)

INTERNAL FACTORS

- **Ease of articulation**: speakers tend to lessen their muscular effort when articulating sounds. E.g. consonant clusters tend to be reduced (cf. /kn/ > /n/ in *knee*), intervocalic consonants tend to be weakened and sometimes lost (e.g. Spanish *helado* [d] >[ð] > ∅); segments are introduced to ease pronunciation OE *þunor* > PDE *thunder*; *film* /filəm/.
- **Perceptual clarity**: "the hearer requires that sounds be maximally distinct (this principle works against the previous one)" (Brinton & Arnovik 2006: 57).
- **Universal tendencies** (e.g. cross-linguistically, final consonants tend to be devoiced; voiceless consonants tend to become voiced in intervocalic position; plosives tend to become fricatives, especially in intervocalic position; final vowels tend to disappear, etc.). These are related to ease of articulation.
- **Phonological symmetry**: phonological systems tend to be symmetrical, gaps in the system tend to be filled. E.g. /ʒ/ (< /zj/ in e.g. *vision*) occupied an empty slot as the voiced counterpart of /ʃ/.
- **Spelling pronunciation**: the spelling of a word may influence its pronunciation. For example, the /t/ in *often* is sometimes pronounced (vs. *listen*, *soften*); *forehead* /fɔ:hed/ vs. earlier /fɒrɪd/.

EXTERNAL FACTORS

- **Contact**: foreign influence may result in changes in the inventory (e.g. phonemization of /z , v/ due to French influence).
- **Social change**: periods of social upheaval are related to periods of dramatic language change: "it is precisely at such tumultuous times that variants are able to take off, spread and eventually embed themselves as long-term changes in the language system" (Burridge & Bergs 2017: 100). E.g. loss of postvocalic /r/ as a 'change from below'.[1]

[1] **Changes from below** (here below indicates both 'below the level of conscious awareness' and 'below socially') are changes which operate below the level of awareness; they are not the subject of over comment. Usually changes from below are led by the lower classes. Occasionally they may become stigmatized and stopped. **Changes from above** (above indicates both 'above the level of conscious awareness' and 'above socially') are changes in which one variant is standard or has clear **overt prestige**. Often these changes are led by the upper classes.

- **Frequency**: frequency and repetition have an important effect on pronunciation. Frequent words and strings of words tend to shorten over time. "Reduction is most obvious in formulaic expressions like greetings and leave-takings; the ritualized string *God be with you* is ground down to *bye*" (Burridge & Bergs 2017: 101).

3.1.3. Unconditioned and conditioned change

Sound changes can be classified into unconditioned and conditioned.

> An *unconditioned* change is one in which every instance of a particular sound changes, regardless of its phonetic environment (i.e. the surrounding sounds or position in a word). The sound changes independently of, or in isolation from, any neighboring sound. In an unconditioned change it is common for an entire class of sounds [...] to change; such systematic change is called a *sound shift*.
>
> [*Conditioned changes* are those in which] a particular sound changes only in a specific phonetic environment; the operation of the change depends upon the neighboring sounds known as the *conditioning environment*. (Brinton & Arnovik 2006: 64)

UNCONDITIONED

An example of an unconditioned change is **Grimm's Law** (or First Consonant Shift), one of the distinctive features of the Germanic branch of Indo-European, which affected the **system of plosives**.

PrIE system

	bilabial	**dental**	**velar**
voiced	b	d	g
voiced & asp.	b^h	d^h	g^h
voiceless	p	t	k

⇓

This system developed into Proto-Germanic:

	bilabial	**dental**	**velar**
voiceless plos.	p	t	k
voiced plosives	b	d	g
voiceless fric.	f	θ	x

PrIE voiced plosives	> PGmc voiceless plosives	Latin *dent* vs. English *tooth*
PrIE voiced aspirated plosives	> PGmc voiced plosives	Sanskrit *bhratar* vs. English *brother*
PrIE voiceless plosives	> PrGmc voiceless fricatives	Latin *tres* vs. English *three*

.

Grimm's Law has some exceptions, but these are systematic and have been explained by another 'law', Verner's Law.

Another example of unconditioned change is the **Great Vowel Shift**, which affected all **long or lengthened vowels** of Middle English. See section 3.2.1.

CONDITIONED

An example of conditioned change is palatalization, a sound change typical of PrOE where velar consonants become palatal **in contact with front vowels** (conditioning environment). Eg. Gmc /k/ + front vowel > /tʃ/ Latin *cista* > OE *cest* /tʃest/

3.1.4. Types of sound change

Assimilation → two sounds occurring close together in speech become more alike (in voicing, manner of articulation or place of articulation). This reduces the effort of pronunciation.

Assimilation can be **total** (e.g. Latin *nocte* > Italian *notte*) or **partial** (e.g. *-ed*, /d/ (voiced) becomes /t/ (voiceless) when the preceding sound is voiceless: *kicked* /kɪkt/).

It is more common for a sound to assimilate to what follows than to assimilate to preceding sounds.

Depending on the position of the sounds involved, we distinguish **contact assimilation**, when the sounds involved are directly adjacent, and **distant assimilation**, when the sounds involved are separated by other segments. The examples above are cases of contact assimilation.

An example of **contact** assimilation is **palatalization** (pre-OE), which typically affects velar consonants appearing before front vowels and the palatal semivowel /j/.

e.g. pre-OE */kinn/ > OE *cinn*, PDE *chin* /tʃɪn/.
Vulgar Latin *cucina* > OE *cycene* /'kytʃene/, PDE *kitchen*

A good example of **distant** assimilation in English is **i-mutation**: vowels moved upwards and to the front when there were /i/ or /j/ in the following syllable. I-mutation took place before the appearance of the earliest written records in the 7th century. The element causing the change is no longer visible in Old English.

e.g. Vulgar Latin *cucina* > OE *cycene* /'kytʃene/, PDE *kitchen*
Gmc **manniz* > OE *menn*

Dissimilation → sounds become less like other sounds in their vicinity. The reasons for dissimilation are not clear. It could be due to the fact that some speakers find it difficult to repeat the same sound. The sounds can be adjacent (**contact**) or not (**distant**).

Latin *pu**r**pu**r**e* > English *pu**r**pl**e***
Old French *ra**n**do**n*** > English *ra**n**do**m***
Baghdad pronounced /bæg'dæg/
chimney pronounced /'tʃɪmli/

Lenition (weakening) → weakening of sounds. Both vowels and consonants can be weakened. It has to do with ease of production. The opposite development, **fortition** or **strengthening**, is much less frequent.

- **weakening of vowels**. English shows the gradual weakening of unstressed vowels to /ə/.
- **weakening of consonants**. Consonants are particularly prone to lenition when they occur in intervocalic position.

LENITION	**left**	**⇒**	**right**
	geminate	>	simplex
	plosives > fricatives > approximants (/w, j, l, r/ and vowels)		
	plosive	>	liquid /l/ /r/
	oral stop	>	glottal stop
	non-nasal	>	nasal
	voiceless	>	voiced
	left	**⇐**	**right** **FORTITION**

Direction of weakenings

butter ['bʌtə] > ['bʌʔə] (glottal stop; BrE, informal); ['bʌɾə] (flap /t/; AmE)

house - houses /haus/ vs. /'hauziz/

German *Tag* /ta:k/

Metathesis → entails the reversal or reordering of two sounds. Liquids, rhotics and nasals seem to be particularly prone to metathesis.

Cf. Standard English *ask* vs. AAVE *aks*

Proto-Gmc	PDE	German
**þurih*	*through*	*durch*
**þridja-*	*third*	*dritte*
**brennan*	*burn*	*brennen*

Examples of metathesis adapted from Burridge & Bergs (2017: 89)

Loss of sounds → Loss of a segment is very common. It is usually prompted by ease of articulation.

- Loss of **vowels**

about > ‘*bout*	loss of an initial vowel	APHESIS
evening /i:vniŋ/	loss of medial vowel	SYNCOPE
OE *nama* > PDE *name* /neim/	loss of final vowel	APOCOPE

- Loss of **consonants**. If this happens in connection with adjacent consonants the change is labelled SIMPLIFICATION OF CONSONANT CLUSTER. Final consonants are sometimes lost (cf. above, /m, n/ > ∅)

  OE *godspel* /dsp/> PDE *gospel* /sp/
  OE *cneow* /kn/ > PDE *knee* /ni:/

Addition of sounds (EPENTHESIS) → a segment is added. Usually prompted by ease of articulation.

PDE *film* > non-standard /'filəm/
OE *þunor* > PDE *thunder*
ME *slumere* > PDE *slumber*
PDE *no* > *nope*

3.1.5. Sound changes affecting vowels

Vowels tend to be more unstable than consonants over time. Changes in vowels can be qualitative, producing a different kind of sound; or quantitative, when the length of the vowel is affected.

Revise your vowels in https://en.wikipedia.org/wiki/IPA_vowel_chart_with_audio

QUALITATIVE CHANGES

RAISING ⇒ Latin *caelu* > Spanish *cielo* (a>i)
LOWERING ⇒ Latin *iocu* > Spanish *juego* (u>o)
FRONTING ⇒ Pr OE **fōtiz* > *fēt* (o:>e:)
BACKING ⇒ Latin *ebriacu* > Italian *ubriaco* (e > u) 'drunk'
CENTRALIZATION ⇒ OE *finger* > PDE *finger* /er/ > /ə/

ROUNDING ⇒ Latin *ebriacu* > Italian *ubriaco* (e > u) 'drunk'
UNROUNDING ⇒ OE *cyning* /y/ > PDE *king* /ɪ/

DIPHTHONGIZATION ⇒ Latin *cento* > Spanish *ciento*; ME *house* /u:/ > PDE *house* /aʊ/
MONOPHTHONGIZATION ⇒ Latin *caule* > Spanish *col*; OE *feallan* > ME *fallen* > PDE *fall*

QUANTITATIVE CHANGES

LENGTHENING ⇒ OE *blind* /i/ > ME *blind* /i:/
SHORTENING ⇒ OE *hāt* /ha:t/ > PDE *hot* /hɒt/

3.1.6. Changes that alter the sound system

Merger → two or more separate phonemes combine to become a single phoneme. Merger can be complete, when it takes place in all environments, or partial. In partial merger phonemes merge only in certain environments and are kept distinct in others.

OE /e:/ in *gēs* and OE /æ:/ in *strǣt* > ME /e:/. Cf. PDE *geese, street*
NZE, AusE /e/ and /æ/ are merging before laterals, so that *shall* and *shell* sound alike.

Sometimes mergers involve a loss in the sound system (i.e. the inventory changes).

Split → allophones of a phoneme split off from that phoneme and (i) merge with a different phoneme (the inventory does not change); or (ii) and this split causes the introduction of a new phoneme (the inventory changes).

OE /f/ had two allophones [f] in initial and final position and [v] medial position. The voiced segment became an independent phoneme /v/ after the introduction of French loanwords like *virgin*, *veal*, etc. which had /v/ in initial position.

OE and ME /n/ had allophones [n] and [ŋ]; the velar segment became a phoneme after the simplification of the consonant cluster [ŋg] in words like *sing*.

3.2. Examples of sound change in the history of English and their orthographic consequences

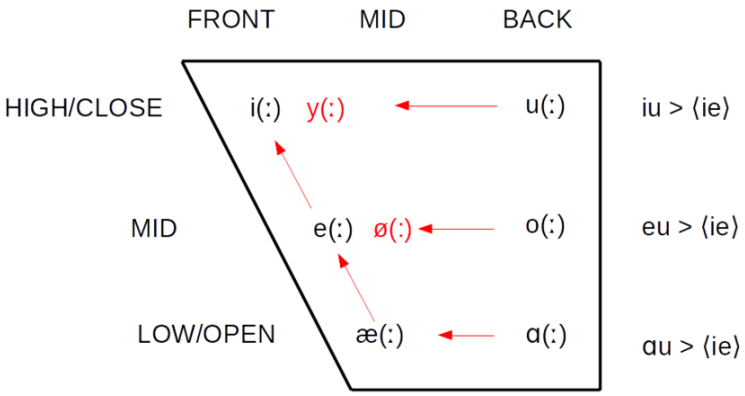
3.2.1. Changes in vowels

3.2.1.1. Old English period

- OE vowel system

OE /i:/	*tīd*	'tide'	OE /i/	*fisc*	'fish'
OE /e:/	*grēne*	'green'	OE /e/	*helpan*	'help'
OE /æ:/	*dǣd*	'dead'	OE /æ/	*dæg*	'day'
OE /a:/	*stān*	'stone'	OE /a/	*dagas*	'days'
OE /o:/	*mōdor*	'mother'	OE /o/	*corn*	'corn'
OE /u:/	*dūn*	'down'	OE /u/	*wunian*	'inhabit'
OE /y:/	*fȳr*	'fire'	OE /y/	*yppan*	'manifest'
OE /æ:ə/	*cēalf*	'calf'	OE /æə/	*eald*	'old'
OE /e:o/	*scēotan*	'shoot'	OE /eo/	*eorðe*	'earth'

- **i-mutation**. Pre-OE; in OE only the effects of i-mutation are to be perceived. The sound causing the mutation is usually lost before the appearance of the earliest written records. This can be described as distant assimiliation.



The vowels and diphthongs of proto-Old English prior to i-mutation (in black) and how they generally changed under i-mutation (in red). Outcomes varied according to dialect; i-mutation of diphthongs is given for Early West Saxon as spelled in manuscripts to uncertainty about the precise phonetic value of the graph.

Figure from By Alarichall - Own work, CC BY-SA 4.0, https://commons.wikimedia.org/w/index.php?curid=44987389

Effects of i-mutation

Plurals: some noun declensions had plural *-***i***z*.
mouse -mice → Proto-Gmc **mus* - **musiz* > Pre-OE **mus* - **mysi* > OE *mus - mys*.
cf. PDE 'irregular' plurals *men, women, geese, teeth, feet, lice*

Comparatives and **superlatives** of adjectives: The inflections were *-***i***ra* / *-***i***sta*.
old - elder - eldest < Pre-OE **ald* - **aldira* -**aldista*. > OE *eald -ieldra -ieldest*

Verb forms: e.g. 3rd person singular present indicative of strong verbs
OE *beran* 'bear' *he bireþ* 'he bears'
No remnants in PDE, but cf. Ger *geben* 'give' *er gibt* 'he gives'

Derivational patterns:
strong - strength OE *strang* *strengþu* < **strang**i**þu*
blood - bleed OE *blōd* vs. *blēdan* < **blōd**j**an*

- (homorganic)[2] **lengthening**. Late 8th century. Short vowels are lengthened before /-ld, -nd, mb/: OE *cild* /tʃild/ > ME *child* /tʃi:ld/; OE *hund* /hund/ > ME *hound* /hu:nd/; OE *climban* /'klimban/ > ME *climb(e)* /'kli:mb(ə)/. Not when followed by another consonant!
- **weakening** of unstressed vowels to schwa. Transition from Old to Middle English. Evidence: confusion of vowel letters in late Old English; replacement of earlier vowel letters by <e> in Middle English. E.g. OE *nosu* ['nɔzu] > eME *nose* /'nɔzə/. This change is due to the fixing of the stress on the root syllable (Germanic Stress Rule). The weakening of unstressed vowels has a deep impact on morphology, since it leads to the gradual erosion of inflectional endings. Between Old and Middle English two weakenings: (i) /a, o, u, e/ > /ə/; and (ii) /m, n/ first merged and then were lost in final position. These weakenings affected inflectional endings and ultimately caused the loss of inflections.

OE *stān* 'stone'	OE	ME	PDE	
nom/acc	*stān*	*stōn*		*stone*
genitive	*stān-es*	*stōn-es*		*stone's*
dative	*stān-e*	*stōn-e*		
nom/acc	*stān-as*	*stōn-es*		*stones*
genitive	*stān-a*	*stōn-e*		
dative	*stān-um*	*stōn-e*		
	weakening to /ə/, merger of /m,n/		loss of final /ə/	

Paradigm of the noun *stone* across time

[2] **Homorganic** consonants are those produced in the same place of articulation.

3.2.1.2. Middle English period

- Middle English vowel system

ME /i:/	*rīd(en), fyr(e)*	‘ride’, 'fire'	ME /i/	*fish, synn(e)* ‘fish’, 'sin'
ME /ɛ:/	*dele*	'deal'	ME /ɛ/	*sett(en)* ‘set’
ME /e:/	*grene*	‘green’		
ME /a:/	*name*	‘name’	ME /a/	*yaf* 'gave'
ME /ɔ:/	*boot, boat*	'boat'	ME /ɔ/	*song* 'song'
ME /o:/	*mood*	'mood'		
ME /u:/	*down, hous*	'down', 'house'	ME /u/	*up* 'up'
			ME /ə/ in unstressed positions	
ME /ai/	*day, grey*	'day, grey'		
ME /ɔi/	*joye, poynt*	'joy, point'		
ME /aʊ/	*saugh*	'saw'		
ME /ɔʊ/	*know(en)*	'know'		
ME /ɪʊ/	*newe*	'new'		

Diphthongs: OE diphthongs are monophthongized → OE *f**ea**llan* > ME *f**a**ll(en)*. Development of a new set of diphthongs ⇒ vowels followed by [ç, x]: OE *eahta* > *ehta* > *eiʒte* ‘eight’; OE *bōhte* > ME *bouhte* ‘bought’; by vocalization of [ɣ, w, j]: OE *dragan* > ME *drawe*; OE *glowan* > ME *glowe*; OE *dæg*> ME *dai*. The diphthong /ɔi/ was borrowed from French.

Orthography: great variability of spelling (lack of standard). Introduction of French conventions, e.g. <ou> for /u:/; <u> for /y/ where preserved. At the end of the period, open and close long vowels have different spellings: <oo> /o:/ vs. <oa> for /ɔ:/; <ee> for /e:/ and <ea> for /ɛ:/.

Qualitative changes

- OE /æ/ > ME /a/ OE *æt* > ME *at* <æ> is no longer used.
- OE /a:/ > ME /ɔ:/ OE *stān* > ME *stone* (rounding) Not in the North!
- OE /y(:)/ ME /y(:)/ <u> *custe* 'kissed' WMid

  ME /e(:)/ <e> *keste* 'kissed' Kent

  ME /ɪ, i:/ <e, y> *kiste*, kissed' N and EMid (unrounding)

  busy and *bury*!

Quantitative changes

- (open syllable)[3] **lengthening** OE *talu* /'talu/ > ME *tal(e)* /ta:l(ə)/
- vowel lengthening due to consonant loss (compensatory **lengthening**), after the loss of [x,ç] ME *niʒt* [niçt] > /ni:t/
- **shortening** before a consonant cluster ME *crepen* /kre:p(ə)n/ > *creep* vs. *crepte* /krept(ə)/ > *crept*

[3] An **open syllable** is that ending in a vowel.

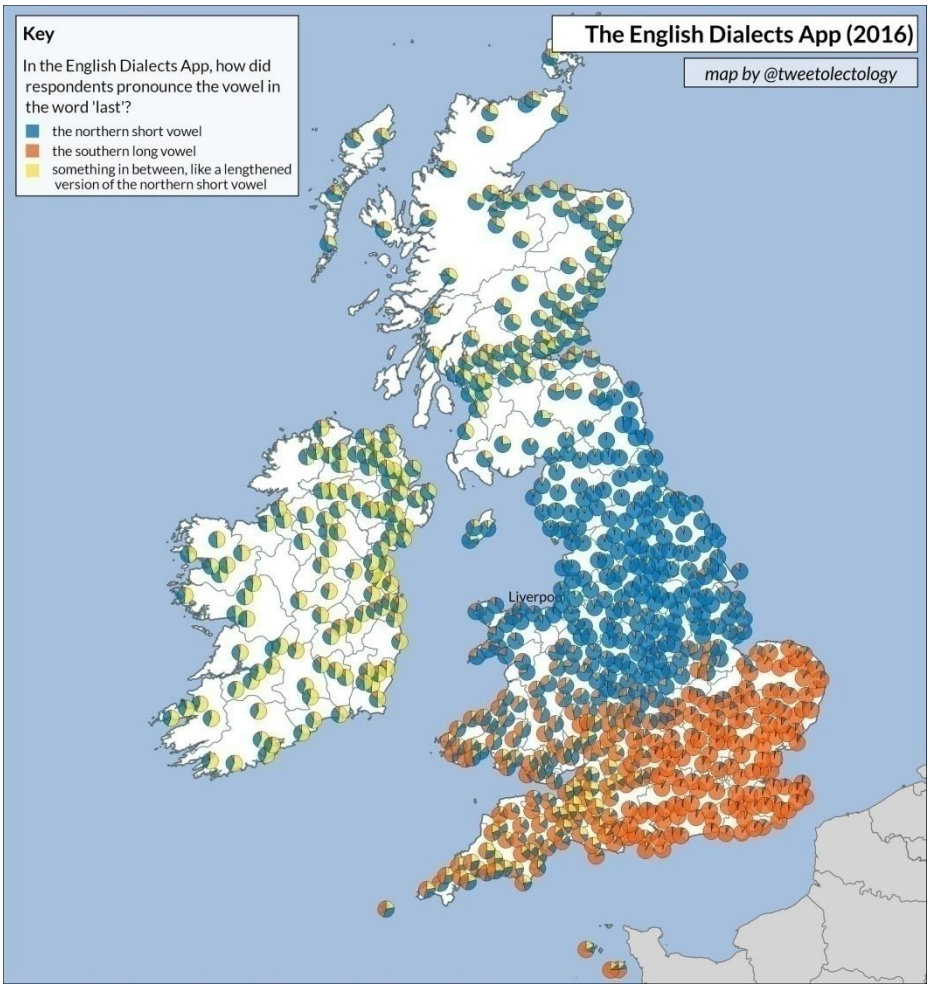
- **shortening** in trisyllabic words ME *holi* /'hɔ:li/ vs. *holiday* /'hɔlidai/
- **loss** of final schwa (15th century) eME *name* /'na:mə/> lME /na:m/

3.2.1.3. Early Modern English period

There are important changes affecting long vowels. The short vowel system was stable but for some relatively small shifts in the articulatory space.

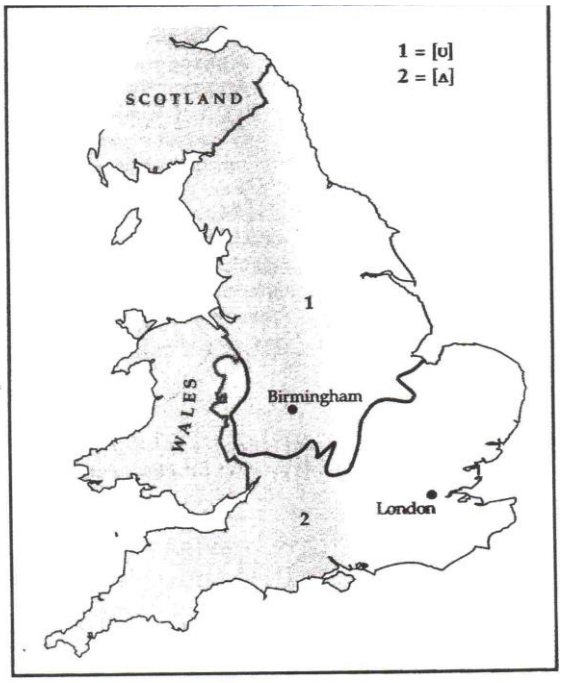
- EModE /æ/ (< ME /a/) was lengthened and backed to /a:/ in contact with /f, θ, s, r/ and sometimes in front of /ns, nt/ in the South: *after*, *path*, *class*. Not in the North, not in AmE (why not in American English?). This change started in the lower classes of London in the 17th century → change from below.

<http://www.bl.uk/learning/langlit/sounds/regional-voices/phonological-variation/>
Here you can listen to different realizations of this vowel in the different dialectal areas in PDE.



On the English Dialect App, see <https://www.mml.cam.ac.uk/dtal/news/English-Dialects-App-tries-to-guess-your-regional-accent>

- /ʊ/ split into /ʊ/ and /ʌ/. It was unrounded, lowered and centralized. Not in the North! The rounded vowel continued to be pronounced in some words in contact with labial consonants (e.g. *bull*, *bush*, *full*, *put*, *wolf*), but not in others (*but*, *fuss*).



Map 2.4 The [ʊ] vs [ʌ] isogloss in England (based on Trudgill and Chambers 1980: 128)

The original vowel /ʊ/ is kept in the North, the split also occurred in Scottish and Irish English. Upwardly mobile speakers of Northern English show a tendency towards unrounding /ʌ/→ Northern pronunciation is stigmatized.

> [T]here are many educated northerners who would not be caught dead doing something so vulgar as to pronounce *strut* words with /ʊ/ but who would feel it a denial of their identity as northerners to say *bath* words with anything other than short [a]" (Wells 1982: 354)

- Merger of vowels followed by /r/ → /-ir-, -ɛr-, -ʊr-/ > /-ər-/ *bird*, *verb*, *turn*. This merger ('the *nurse* merger') starts in the N and E, it reaches London in the 17th century. Some /-ɛr-/ > /ar/. Cf. *Derby*, *clerk* and EModE spellings <sarvice, desarve> for *service* and *deserve*.
- /a/ > /ɒ/ following /w/ *wall*, *quarter*. This did not apply if the vowel is followed by a velar (cf. *wag*, *wax*).

The Great Vowel Shift

"the most emblematic of all phonological changes in the history of English" (Minkova 2014: 248)

"a revolution in the pronunciation of long vowel whose causes remain mysterious" (Pinker 1994: 250)

One of the phonological developments that obliterated earlier sound-spelling correspondences were changes in long vowels known as the Great Vowel Shift (GVS). It was a series of events which began in the fifteenth century and came to completion in the eighteenth century with the bulk of the changes working their way through the sound system in the Early Modern period. [...] The **chain of changes** moved all long vowels to a higher position in the vowel space. (Nevalainen 2006: 120-121) [emphasis added]

Which sounds were the first to move?

- high vowels /i:/ and /u:/ were diphthongized, this dragged the other vowels to fill the empty spaces (**drag chain**)?
- /e:/ and /o:/ were the first to move, "setting in motion simultaneously a drag and a push chain, pushing the high vowels out of their positions and pulling the lower vowels up (Brinton & Arnovik 2006: 308).
- It is generally agreed that **high/higher-mid vowels** started the shift **simultaneously** (c. 1400-1550), and that low vowels followed (c. 1550-1750). (Minkova 2014: 253, 256).

Great Vowel Shift

(1300)	1400		1500	1600	1700	1800		present
driven	/i:/	/ɪi/	/ei/	/ɛi/	/ʌi/	/ai/		
house	/u:/	/ʊu/	/ou/	/ɔu/	/ʌu/	/au/		
feet	/e:/		/i:/					
fool	/o:/		/u:/					
beat	/ɛ:/				/e:/	/i:/		
foal	/ɔ:/				/o:/			/əu/
take	/a:/		/æ:/	/ɛ:/	/e:/	/ei/		
sail	/ai/		/æi/	/ɛi/	/e:/	/ei/		
law	/au/		/ɒu/	/ɒ:/			/ɔ:/	

(from https://www.uni-due.de/SHE/SHE_Change_Phonological.htm)

- The changes started in the South of England. In the North the GVS affected front vowels, but not all back vowels (cf. PDE *loud* /lu:d/, *mouth* /mu:θ/).

- The change did not proceed uniformly across the lexicon, that is, it did not affect all the words fulfilling the requirements. Therefore, it is not fully regular. E.g. some words with /ɛ:/ > /e:/ but /e:/ was not subsequently raised to /i:/: *break*, *great*, *drain*. We do not know why these words have behaved in this way. Probably the presence of /r/ plays a role.

- **Social factors**:

> The Great Vowel Shift seems to have begun in the South-East of England in the years after 1400, and there are two key extralinguistic developments which correspond with it: the development of an **urban setting for the vernacular**, and the appearance of **class-based standardisation in speech**. (Smith 1996: 89). [emphasis added]

  - Rise in the size and importance of London.
  - Cities, and especially London, were centres for markets and fairs, essential in the development of the economy. London is the capital city, centre of government; the major port in the country → immigration towards London.
  - Emergence of an urban middle class, especially prominent in the English Civil Wars (1640s).

- From the 16th century onwards, the variety of English spoken in London is regarded as the best one. George Puttenham, *The Arte of English Poesie* (1589), encourages his readers to imitate "the vsuall speech of the Court, and that of London and the shires lying about London within lx.myles, and not much aboue" and the language of "the better brought vp sort".

> We shall accordingly locate the origins of the Vowel Shift in Tudor London, as different dialect mixed, and as self-consciousness about class and status intensified. (Leith 1997: 142).

- From a **sociolinguistic** point of view, upper classes ("the better brought vp sort") and lower classes were well established in their social position, but the new middle classes aspired to improve their social position → upwardly mobile speakers are key in language change. These speakers (*Mopsae*) tried to ape the linguistic behaviour of their social superiors, and sometimes overdoing it (hypercorrection). They were criticized by contemporary commentators, as using "affected speech", since they accentuated some vowels by raising them in imitation to the upper classes, which tensed their vowels by French influence.

> At all events it is possible to accept that the trigger for the Great Vowel Shift was sociolinguistic: an attempt by some speakers to imitate the more acceptable pronunciation of London and the potential competition which this provoked. Blake (1996: 211)

- Different social classes had different long vowel systems! → influence of **social stratification**.

Aristocracy	**Bourgeoisie**	**Lower class**
meet /i:/	*meet* /i:/	*meet* /i:/
meat /ɛ:/ or /e:/	*meat* /e:/	*meat* /i:/
mate /æ:/ or /ɛ:/	*mate* /e:/	*mate* /e:/

Social dimensions of the GVS ca. 1600, from Minkova (2014: 262)

The pronunciation of meat as /mi:t/ was probably "at first a pronunciation avoided in educated or polite usage, but by the mid-eighteenth century it had become standard in all but a few words" [*steak*, *break*, *great*, *yea*] (Brinton & Arnovik 2006: 312)

Further reading: Fennel (2001: 160-161), to be found in the teaching platform.

> [T]he Great Vowel Shift is indeed a mixture of push and pull or drag factors [...] However, we also are able to hypothesize that **the change is motivated by social stratification**. That is to say, it was caused by the **increase in social differentiation** typical of the swelling urban population in and around the capital at the time. (Fennel 2001: 161) [emphasis added]

Consequences of the Great Vowel Shift

> First, it eliminated the distinction between long and short vowels that had characterized both the Old and Middle English phonological systems. [...] Thus, the vowel system underwent a significant change from one based on distinctions of quantity [...] to one based on distinctions of quality. [...] Second, the Great Vowel Shift confused English spelling. (Brinton & Arnovik 2006: 313)

- **Shortening of /e:/ and /u:/ to /e/ and /**ʊ/in monosyllabic words in which the vowel was followed by /t,d, k, f, v, θ/ e.g. ME *foot* /fo:t/ > /fu:t/ > /fʊt/
  In some words /ʊ/ > /ʌ/, as in ME *blood* /blo:d/ > /blu:d/ > /blʊd/>/blʌd/ (i.e. shortening took place before the change from /ʊ/ > /ʌ/ was effective)

3.2.2. Changes in consonants

Consonants are far more stable than vowels.

3.2.2.1. Old English

OE consonant system

Consonants of OE are parallel to those of PDE. Some differences:

- /f, ð, s/ ⇒ voiced sounds were **allophones** of these in medial position (e.g. *drīfan* ‘to drive’ [v] vs. *drāf* ‘I/he drove’ [f]). The voiced and voiceless allophones were spelt the same <f, þ/ð, s>.

- /x/ had three allophones [h, x, ç] *hūs* ‘house’, *þōhte* ‘thought’, *niht* ‘night’. They were spelt <h>.
- /g/ had three allophones [g, ɣ, j] *gān* 'go', *dagas* 'days', *giefan* 'give'. The spelling was <g>.

- OE had some consonant clusters which no longer exist: /hl-, hr-, hn-, hw-, kn-, gn-, wr-, wl-/ *hlūd* ‘loud’, *hring* ‘ring’, *hnutu* ‘nut’, *hwāt* ‘what’, *cneo* 'knee', *gnætt* 'gnat', *writan* 'write', *wlispian* 'lisp'. These consonant clusters disappear over time at different periods, the later the loss the more likely it is for it to leave a trace in spelling.

- Geminate or double consonants e.g. *hoppian* ‘to hop’ vs. *hopian* ‘to hope’

OE consonant changes

- Palatalization of velar plosives in contact with front vowels, and palatalization of the group /sk/. Only found in native words and early loanwords from Latin. It does not affect Scandinavian borrowings → *shirt* vs. *skirt*; *chest* vs. *kist* (Scots and Northern).

3.2.2.2. Middle English

- The former voiced allophones of the fricatives /f, s, θ/ become distinct phonemes /v, z, ð/, with the introduction of French words starting with /v, z/. Also some dialectal areas had fricative voicing: *Zommerzet*, *vixen*. The graphemes <v, z> are introduced for the voiced segments. In the case of [ð] > /ð/ phonemization (split) could have been the consequence of systemic pressure.
- [h] disappears before /l, n, r/, OE *hnutu* > ME *nut*
- [ç, x] disappear from the inventory (15th century), producing compensatory lengthening of the preceding vowel and leaving a trace in spelling <gh>. In some words they remained for a while and then, [x] > /f/, *enough*, *rough*, *cough*,

laugh, *draught* (17th century). This change was probably due to perceptual confusion. At the beginning /f/ was stigmatized.

- Loss of final /-n/ in many words, especially in inflectional endings. OE *rīdan* 'ride' > ME *ride(n)*.

3.2.2.3. Early Modern English

Loss of postvocalic /r/

- Some evidence already in the late 15th century. Clear evidence from the 17th century. Between 1700-1800 it was considered vulgar. It was not adopted by the upper classes until after 1800. "There is clearly a very important socio-linguistic component to the change, where **literacy** is a major factor" (Minkova 2014: 126) [emphasis added]. The upper classes could read and write.
- Varieties of English can be rhotic or non-rhotic, depending on the period when English is transplanted to the new territory: "Along with SSBE, non-rhotic English is spoken today in parts of the US eastern seabord and the Gulf Coast, South Africa, Australia and New Zealand. The main rhotic varieties are spoken in Scotland, Ireland, South-West England, extreme West Lancashire, most of the USA and Canada" (Minkova 2014: 126-127).
- Post-vocalic /r/ and prestige → change from below! In AmE post-vocalic /r/ is a prestigious variant and has spread over time (cf. Labov's 1966 study *on the fourth floor*).
- In non-rhotic varieties, /-r/ is preserved when it is followed by a vowel: *summer in Wales*, *poor Andy* 'linking /r/. Sometimes a non-etymological /r/ is inserted *law[r] and order* 'intrusive /r/'. This is regarded as 'incorrect' and is avoided in formal styles.

Adoption of /ʒ/

- This consonant has two sources: (i) exposure to French loans with /ʒ/ (cf. PDE *garage*, *melange*); (ii) borrowings where /z/ was followed by /j/, as in division /di'vizjən/ > / di'viʒən/. Assimilatory change. Probably underway in the 17th century. "The integration of /ʒ/ in the consonantal system has been progressing in the last centuries and new borrowings continue to introduce the speakers to items with /ʒ/ in initial and final position" (Minkova 2014: 142) (e.g. *genre*, *rouge*).
- Other related palatal assimilations (not deriving in the introduction of a new element in the inventory) → /sj/ > /ʃ/ *mission*, *sugar*; /tj/ > /tʃ/ *mature*; /dj/ > /dʒ/ *soldier*. Cf. also Estuary English *Tuesday* /tʃ/. Sometimes these palatalizations take place across word boundaries: *got you* > *gotcha*.

Phonemization of /ŋ/

- This sound became an independent phoneme with the simplification of the consonant cluster [ŋg]. Minimal pairs such as *sin-sing, thin-thing, ran-rang* show its status as a phoneme. The simplification of the consonant cluster started in the North probably as early as the 14th century, but it spread slowly everywhere else. The context in which simplification first occurred was in the ending *-ing*.
- ***-ing* and prestige**. /-iŋ/ vs. /-in/, stable variation, but varying prestige! The alveolar pronunciation was prestigious at first (Queen Elizabeth I writes <besichen> for *beseeching*; in the 18th century prestigious poets like Byron, Keats and Tennyson rhyme <-in> and <-ing> words, indicating that they pronounced /-in/. /-iŋ/ started to be preferred in educated speech by the end of the 19th century, as a consequence of orthographic prescriptivism.

Changes taking place right now...

- **glottalization,** [ʔ] for /t/ in final and intervocalic position. No longer so stigmatized in London (feature of Estuary English). "Glottalling is assumed to have started in Edinburgh and, independently of that,also in London, and generally affects /t/ which is not word-initial", probably in the second half of the 19th century, but it spread in the 20th century and is gaining ground (Hejná & Walkden 2022: 39)

- **th-fronting**, /f/ for /θ/(feature of Estuary English).

- **Uptalk:** This is related to intonation and involves the use of the rising intonation of yes/no questions in declarative sentences. This seems to have started in AmE (California) and is stigmatized.

- **Creaky voice (irregular vibration of the vocal cords).** Some studies have suggested that creaky voice indexes "urban-oriented upwardly mobile identity of (accomplished) female speakers […] affective stance […], and a transition of relevance in a conversation […]. Creaky phonation has been very negatively stereotyped in American English," (Hejná & Walkden 2022: 43)

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