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# Sound changes

and irregularities in English spelling  
and morphology



1. Introduction
2. Common sound changes
3. The Great Vowel Shift
4. Sound change leading to irregularities I: spelling and pronunciation
5. Sound change leading to irregularities II: morphology

"... beware of *heard*, a dreadful word,  
that looks like *beard* and sounds like *bird*"

"... beware of *heard*, a dreadful word,  
that looks like *beard* and sounds like *bird*"

*heard*      □□□□□□

*beard*      □□□□□□

*bird*        □□□□□□

*knight*      *would*      *who*

*doubt*      *honest*      *though*

*knight*

would

who

doubt

honest

though

## 11 ways of spelling /i:/

1. <ae> *Caesar*
2. <ay> *quay*
3. <e> *be*
4. <ea> *sea*
5. <ee> *sneeze*
6. <ei> *seize*
7. <eo> *people*
8. <ey> *key*
9. <i> *police*
10. <ie> *field*
11. <oe> *Phoenix*

## 6 phonemes represented by <ea>:

1. /i:/ *beat*
2. /ɪə/ *beard*
3. /e/ *head*
4. /eɪ/ *great*
5. /ɜ:/ *heard*
6. /ɑ:/ *heart*



**And some real exaggerations**

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Menu today:

Ghoti à la  
seagh

## And some real exaggerations

Menu today:

Ghoti à la  
seagh

Fish à la chef

□□□□□□□□□□□□□□□□

<gh> for /f/ as in  
*cough*

<o> for □□□□ as in  
*women*

<ti> for □□□□ as in  
*nation*

<s> for □□□□ as in *sure*

<ea> for □□□□ as in

## And some real exaggerations

*though the rough cough and hiccough plough me  
through*

*I ought to cross the lough*



``Forenners and strangers do wonder at vs  
both for the vncertaintie in our writing, and the  
inconstancie in our letters''

Richard Mulcaster, ***Elementarie*** 1582  
(in Crystal 2012: 146)

## 2. Common sound changes

# Assimilation



**assimination**

a sound becomes more  
similar to a neighbouring  
sound

(reduces articulatory effort)

***ten pigs***



# Assimilation

a sound becomes more similar to a neighbouring sound

(reduces articulatory effort)

***ten pigs***

□□□□□□□□□□ > □□□□□□□□□□

# Assimilation

a sound becomes more similar to a neighbouring sound

(reduces articulatory effort)

***I used a knife*** □□□□□□□□

***I used to go there  
often*** □□□□□□□□□□

**Assimilation**

**leading to past-tense allomorphs**

***kissed – loved –  
wanted***







# Assimilation

- anticipatory (***ten pigs***) vs. progressive (***kissed***)
- proximate (***ten pigs***) vs. distant (\****penk<sup>w</sup>e*** > \****k<sup>w</sup>enk<sup>w</sup>e***)
- full (***that case***) vs. partial (***ten pigs***)



**dithsimilation**

**Dissimilation**

a sound becomes less similar to a neighbouring sound

e.g.

Latin ***peregrinus*** > OF ***pelerin***  
(E ***pilgrim***)



## Dissimilation

a sound becomes less similar to a neighbouring sound

e.g.

Latin ***peregrinus*** > OF ***pelerin***  
(E ***pilgrim***)

Latin ***purpura*** > OF ***purpre*** > E  
***purple***



*epenthesis*

## **E p e n t h e s i s**

an additional sound is inserted

e.g.

- Latin ***schola*** > OF ***e*sc~~o~~le** (> F ***é*cole**)
- English ***hamster*** > ██████**h**██████
- OE ***punor*** (cf. G ***Donner***) > ModE ***thun*der**



*apocop'*

**Loss of a**

•final vowel (*apocope*),

e.g. ME *name* > ModE  
*name*

## Loss of a

- final vowel (*apocope*),

e.g. ME ***name*** [na:m] →  
***name*** [neɪm]

*sync'pe*

- medial vowel (*syncope*)

E ***secretary*** [sɪkɪtəri] →  
[sɪkɪtəri]

## Loss of a

- final vowel (*apocope*),

e.g. ME ***name***   
***name***



- medial vowel (*syncope*)

E ***secretary***   


- syllable from a sequence of similar syllables (*hapology*)

OE ***Engla-lond*** > ME  
***England***

# Metathesis



*metathesis*

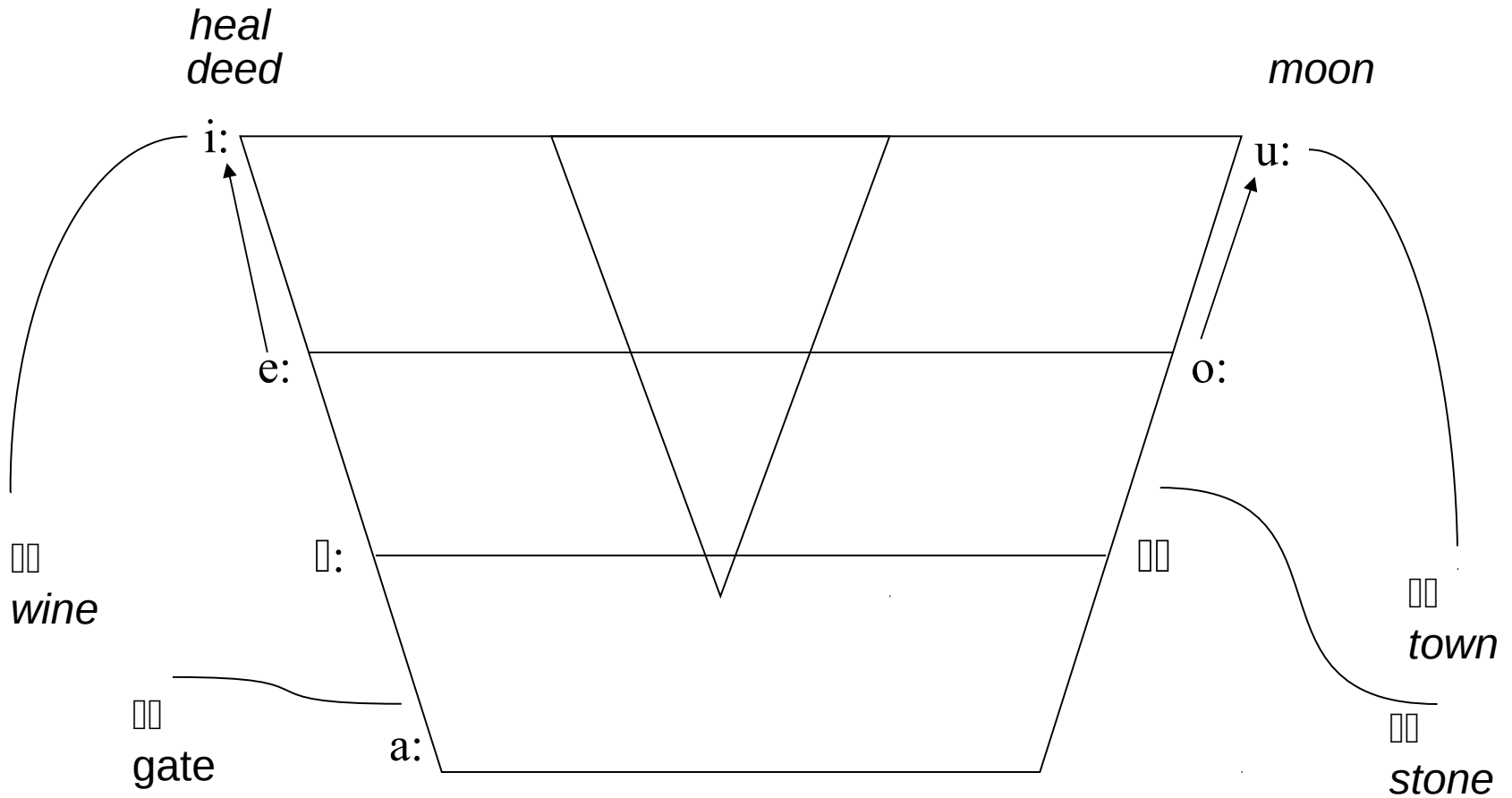
reordering of segments (often involving liquids)

OE ***acsian*** /ks/ > ModE ***ask*** /sk/ (> AAVE ***aks*** /ks/)

OE ***pri***, ***pridda*** (cf. G ***drei***, ***dritter***)  
> ModE ***three***, ***third***

### 3. The Great Vowel Shift

# Vowel space: the Great Vowel Shift





| Old English word | before 1500 (Chaucer) | after 1500 (Shakespeare) | after 1800 | after 1900 | Modern English spelling |
|------------------|-----------------------|--------------------------|------------|------------|-------------------------|
| <i>nama</i>      | /a:/                  | > /ɛ:/                   | > /eɪ/     | > /eɪ/     | <i>name</i>             |
| <i>rædan</i>     | /ɛ:/                  | > /e:/                   | > /i:/     | > /i:/     | <i>read</i>             |
| <i>swete</i>     | /e:/                  | > /i:/                   | > /i:/     | > /i:/     | <i>sweet</i>            |
| <i>lif</i>       | /i:/                  | > /æɪ/                   | > /aɪ/     | > /aɪ/     | <i>life</i>             |
| <i>nosu</i>      | /ɔ:/                  | > /o:/                   | > /oʊ/     | > /əʊ/     | <i>nose</i>             |
| <i>sona</i>      | /ɔ:/                  | > /u:/                   | > /u:/     | > /u:/     | <i>soon</i>             |
| <i>hus</i>       | /u:/                  | > /əʊ/                   | > /aʊ/     | > /aʊ/     | <i>house</i>            |



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| <i>rædan</i>     | /ɛ:/                  | > /e:/                   | > /i:/     | > /i:/     | <i>read</i>             |
| <i>swete</i>     | /e:/                  | > /i:/                   | > /i:/     | > /i:/     | <i>sweet</i>            |
| <i>lif</i>       | /i:/                  | > /æ:/                   | > /aɪ/     | > /aɪ/     | <i>life</i>             |
| <i>nosu</i>      | /ɔ:/                  | > /o:/                   | > /oʊ/     | > /əʊ/     | <i>nose</i>             |
| <i>sona</i>      | /ɔ:/                  | > /u:/                   | > /u:/     | > /u:/     | <i>soon</i>             |
| <i>hus</i>       | /u:/                  | > /əʊ/                   | > /aʊ/     | > /aʊ/     | <i>house</i>            |

1. "What's in a **name**? that which we call a **rose** / **by** any other **name** would smell as **sw**ee**t**." (Shakespeare, *Romeo and Juliet*, 2.1.85—86)
2. **My boun**ty**** is as **boun**d**less** as the **sea** (Shakespeare, *Romeo and Juliet*, 2.1.175)
3. **Th**es**e tim**e**s** of **w**oe**** afford **no tim**e**** to **w**oo**** (Shakespeare, *Romeo and Juliet*, 3.4.8)
4. Juliet, **ba**b**y**, you're **my fl**a**me** (Peggy Lee, *Fever*)

4. Sound change leading to irregularities I: spelling and pronunciation

Modern English spelling

≈

Middle English pronunciation

# Great Vowel Shift only affected long vowels

|     | German                               | Spanish         | Middle English                            | Modern English                              |
|-----|--------------------------------------|-----------------|---|---|
| <i> | <i>Kind</i> /ɪ/                      | <i>ir</i> /i/   | ME <i>child</i> /i:/, <i>children</i> /i/ | ModE <i>child</i> /aɪ/, <i>children</i> /ɪ/ |
| <e> | <i>beten</i> /e:/, <i>betten</i> /ɛ/ | <i>pero</i> /e/ | ME <i>be(n)</i> /e:/, <i>bed</i> /e/      | ModE <i>be</i> /i:/, <i>bed</i> /e/         |
| <a> | <i>sagen</i> /a:/, <i>Sack</i> /a/   | <i>caro</i> /a/ | ME <i>lame</i> /a:/, <i>hat</i> /a/       | ModE <i>lame</i> /eɪ/, <i>lamb</i> /æ/      |
| <o> | <i>Ofen</i> /o:/; <i>offen</i> /ɔ/   | <i>por</i> /o/  | ME <i>losen</i> /o:/, <i>lost</i> /ɔ/     | ModE <i>lose</i> /u:/, <i>lost</i> /ɒ/      |

Lost sounds still visible in spelling

OE and ME: phoneme /x/,

often spelled <gh> in Middle English

e.g. ME ***light***

□□□□□□□□□□

□ ME ***doughter***

□□□□□□□□□□

□

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/x/ lost in late Middle English  
(sometimes > [f]), <gh> spelling was retained

Lost sounds still visible in spelling

OE and ME: phoneme /x/,

often spelled <gh> in Middle English

/x/ lost in late Middle English (sometimes > [f]), <gh> spelling was retained.

***knight, fight, laugh, cough, enough, though,...***



Lost sounds still visible in spelling

phonotactic changes:

\_\_\_\_\_, \_\_\_\_ possible in OE and ME

no longer in ModE, but  
retained in spelling

***lamb, knight, gnat, know, knee,  
bomb, gnostic,...***

## 5. Sound change leading to irregularities II: i-Umlaut and English morphology

plural forms

*foot – feet*

*tooth – teeth*

*man – men*

*goose –  
geese*

*mouse –  
mice*

deadjectival  
nouns

*long – length*

*strong –  
strength*

*foul – filth*

*whole -- health*

deadjectival  
verbs

*whole – heal*

*tale – tell*

*food – feed*

□□□□□□□□□□

*tooth – teeth*

*goose –  
geese*

*food – feed*

□□□□□□□□

*foot – feet*

□□□□□□□□□□

*whole -- health*

□□□□□□□□□□

*whole – heal*

□□□□□□□□□□

*mouse –  
mice*

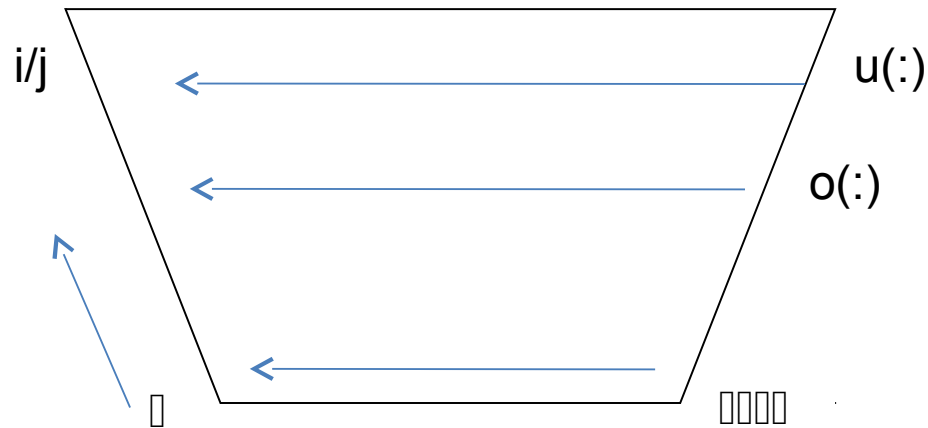
□□□□□□□□□□

*foul – filth*

# ***i-Umlaut***: c. 500/600

conditioned sound change

distant partial assimilation of vowels in stressed syllables to an [i]/[j] in the following syllable



## Plural forms: former ending \*{-iz}

\***mus+iz**

> \***mys+iz**

[i] then gets lost

> OE **mys**

/y:/ then unrounded to /i:/

> ME **mice**

diphthongized in GVS

> ModE **mice**

□□□□ with allophones

□□□□ and □□□□□□ in complementary distribution

phonemic split: □□□□ and □□□□

## Plural forms: former ending \*{-iz}

\***gos+iz**

> \***gōs+iz**

[i] then gets lost

> \***gōs**

/o:/ then unrounded to /e:/

> OE/ME **ges** /e:/

raised in GVS

> ModE **geese** /i:/

with allophones

and in complementary distribution

phonemic split: and

**Deadjectival nouns: suffix \*{iþu}**

**\*ful+iþu**

> **\*fyl+iþu**

[i] then gets lost

> OE **fyllþ**

/i:/ then unrounded to /i:/ and shortened to /i/

> ME **filth** /i/



**Deadjectival nouns: suffix \*{ipu}**

**\*hal+ipu**

> **\*hæł+ipu**

[i] then gets lost

> OE **hælp**

/i:/ then shortened and raised to /e/

> ModE **health** /e/

**Deadjectival verbs: suffix \*{-jan}**

**\**hal+jan***

> **\**hæł+jan***

[j] then gets lost

> OE ***hælan***

/ɛ:/ then raised to ME     

> ME ***healen*** /    /

raised in GVS to /     and then /    

> ModE ***heal*** /