

Some English words illustrating the Great Vowel Shift.

	ca. 1400	ca. 1500	ca. 1600	present
'bite'	bi:tə	bəit	bəit	baɪt
'beet'	be:t	bi:t	bi:t	bi:t
'beat'	bɛ:tə	be:t	be:t ~ bi:t	bi:t
'abate'	aba:tə	aba:t > abe:t	əbe:t	əbeɪt
'boat'	bɔ:t	bɔ:t	bɔ:t	bɔʊt
'boot'	bɔ:t	bu:t	bu:t	bu:t
'about'	abu:tə	abəʊt	əbəʊt	əbaʊt

Note that, while Chaucer's pronunciation of the long vowels was quite different from ours, Shakespeare's pronunciation was similar enough to ours that with a little practice we would probably understand his plays even in the original pronunciation—at least no worse than we do in our own pronunciation!

This was mostly an unconditioned change; almost all the words that appear to have escaped it either no longer had long vowels at the time the change occurred or else entered the language later.

However, there was one restriction: /u:/ was not diphthongized when followed immediately by a labial consonant. The original pronunciation of the vowel survives without change in *coop*, *cooper*, *droop*, *loop*, *stoop*, *troop*, and *tomb*; in *room* it survives in the speech of some, while others have shortened the vowel to /ʊ/; the vowel has been shortened and unrounded in *sup*, *dove* (the bird), *shove*, *crumb*, *plum*, *scum*, and *thumb*. This multiple split of long u-vowels is the most significant irregularity in the phonological development of English; see the handout on Modern English sound changes for further discussion.

The Middle English vowel /ɛ:/ underwent a number of divergent developments which are difficult to date; the following are the important complications.

Instead of /i:/ we find a long e-vowel in *bear* (both meanings), *pear*, *swear*, *tear* (the verb), and *wear*; remarkably, all six of these words (counting *bear* as two) contained Old English SHORT /e/ followed by /r/ in an open syllable. The usual story is that this vowel was lengthened to /ɛ:/ in open syllables in Middle English, but the Modern English outcome suggests that when followed by /r/ it did not merge with the other vowels that usually gave Middle English /ɛ:/—at least not in one of the dialects that underlie London English. (On the other hand, OE *spere* gives ModE *spear*, with /i:/—either an isolated irregularity or from a different dialect. Labov 1994:152-3

points out that it is the more common words that show the unexpected vowel, hinting at a sound change arrested in progress, which is plausible—but delete his example *smear*, which actually reflects OE *smierwan* (*smerian* means ‘ridicule’), and perhaps *weir* < OE *wer*, the phonological history of which is less clear.)

Likewise instead of /i:/ we find /eɪ/ in *great* and *break*. This is often attributed to the preceding /r/, or even on the Cr-cluster, and Labov’s findings about the strong influence of initial obstruent-plus-liquid clusters suggest that that is correct (cf. Labov 1994:457-8). But the situation is more complex: contrast *breach*, *grease*, *cream*, etc., with /i:/. Complicating the picture still further is the evidence that these words were also pronounced with /i:/ in the 18th c., and the fact that its comparative was for a long time *gretter* (with a short vowel, rhyming with *better* in Shakespeare; see Jespersen 1948:338-9). The most plausible explanation is that the combination of initial Cr-cluster (which would tend to lower the vowel) and final voiceless stop (which would tend to shorten the vowel, maximizing the effect of the lowering) were the crucial factors, perhaps with an added push from *gretter* (as Jespersen suggests).

Finally, /ɛ:/ was shortened before dental and alveolar consonants in a considerable number of words, notably *bread*, *dead*, *dread*, *head*, *lead* (the noun), *red*, *shred*, *spread*, *thread*, *tread*, *fret*, *et* (the dialect past tense of ‘eat’), *let*, *sweat*, *threat*, *breath*, and *death*; contrast *bead*, *knead*, *lead* (the verb), *mead*, *plead*, *read*, *beat*, *eat*, *heat*, *meat*, *beneath*, *heath*, *sheath*, *wreath*. Possibly *deaf* (vs. *leaf*, *sheaf*) belongs here too. So far as I know, this has not been seriously studied; it looks like a promising case of intricate Labov conditioning, if only the facts can be determined.

Examples of vowel alternations affected by the Great Vowel Shift.

Late Middle English	Early Modern English	
hi:də, hiddə	həid, hɪd	‘hide, hid’
či:ld, čildərən	čəild, čɪldrən	‘child, children’
wi:zə, wɪzdom	wəiz, wɪzdom	‘wise, wisdom’
fi:və, fɪfte:n	fəiv, fɪfti:n	‘five, fifteen’
kri:st, krɪst(ə)massə	krəist, krɪs(tə)mas	‘Christ, Christmas’
ke:pə, keptə	ki:p, kept	‘keep, kept’
mɛ:tə, mɛttə	mi:t, met	‘meet, met’
fɛ:də, fɛddə	fi:d, fed	‘feed, fed’
dɛ:p, dɛpθ	di:p, dɛpθ	‘deep, depth’
θɛ:f, θɛft	θi:f, θɛft	‘thief, theft’
lɛ:də, lɛddə	le:d, led	‘lead, led’
klɛ:n, klɛnzə	kle:n, klɛnz	‘clean, cleanse’
hɛ:lə, hɛlθ	he:l, hɛlθ	‘heal, health’
hu:s, hʊzbond	həus, hʊzbənd	‘house, husband’
su:θ, sʊðərən	səuθ, sʊðərən	‘south, southern’
u:t, Ut(t)ər	əut, Utər	‘out, utter’
gɔ:s, gɔzliŋg	gu:s, gɔzliŋg	‘goose, gosling’
fɔ:d, fɔd(d)ər	fu:d, fɔdər	‘food, fodder’
hɔ:li, hɔlɪdɛi	hɔ:li, hɔlɪdɛi	‘holy, holiday’
nɔ:zə, nɔstrəl	nɔ:z, nɔstrəl	‘nose, nostril’
gras, gra:zə	gras, gra:z > grɛ:z	‘grass, graze’
bath, ba:ðə	bath, ba:ð > bɛ:ð	‘bath, bathe’
ma:ri, marɪgəuld	ma:ri > mɛ:ri, marɪgəuld	‘Mary, marigold’

Late Middle English

Early Modern English

mu:s, mi:s

məʊs, məis

‘mouse, mice’

lu:s, li:s

ləʊs, læis

‘louse, lice’

fu:l, filθ

fəʊl, filθ

‘foul, filth’

go:s, ge:s

gu:s, gi:s

‘goose, geese’

to:θ, te:θ

tu:θ, ti:θ

‘tooth, teeth’

fo:t, fe:t

fu:t, fi:t

‘foot, feet’

fo:d, fe:də

fu:d, fi:d

‘food, feed’

blo:d, ble:də

blu:d, bli:d

‘blood, bleed’

do:m, de:mə

du:m, di:m

‘doom, deem’ (‘judgment, judge’)

ho:l, hɛ:lə

ho:l, he:l

‘whole, heal’

dɔ:l, dɛ:lə

do:l, de:l

‘dole, deal’

Early sound changes of relevance to Modern English vowels.

1. In the prehistoric OE period, long vowels were shortened

a) before clusters of three consonants, and

b) before clusters of two consonants if at least two syllables followed in the word.

Examples:

*sām- ‘half’ (cf. Old High German *sāmi-*) > *sam-* in *samcwic* ‘half-alive’,

samboren ‘untimely born’, etc. [cf. ModE *sandblind*, reanalyzed by folk etymology]

bremblas ‘brambles’ < *brēmblas < *brēmlas, cf. sg. *brēmel*

*gōdspell ‘good news’ (literal translation of εὐαγγέλιον) > *godspell* ‘gospel’

gastlic ‘spiritual; spectral’, cf. *gāst* ‘spirit’ [ModE *ghastly*, *ghost*]

bletsian ‘to bless’ < *blætsian* (attested in the late Mercian *Rushworth Glosses*) <

*blædsian (cf. derived noun *blædsung* in the late Northumbrian *Durham*

Ritual) < *blōdisōjan ‘to sprinkle with (sacrificial) blood’, cf. *blōd* ‘blood’

Hlammæsse ‘Lammas (August 1, the feast of St. Peter in Chains)’ < *Hlāfmæsse*

(also attested as a recompond) ‘bread-mass’ (so called because in England

Lammas was also a harvest festival, and blessed loaves were distributed after mass)

Cristesmæsse ‘Christmas’, cf. *Crīst* ‘Christ’

This was a “minor” OE phonological rule, affecting relatively few forms. It had already ceased to be fully automatic; for instance, the underlying form of the prefix ‘half-’ had been reinterpreted as /sam-/ (as we can see from the spelling: the form with a long vowel should have been *sōm-).

2. Possibly early in the 10th century, and at any rate within the OE period, vowels were lengthened in the southern dialects

a) before a coronal sonorant which was immediately followed by a voiced coronal obstruent, and

b) before the clusters *mb*, *ng* (which are also fully voiced and homorganic).

The rule probably failed to operate if a further consonant followed immediately, and perhaps if more than two syllables followed; i.e., it looks as though change #1 acted as a phonological filter on the output of change #2. It also failed to operate in unstressed and weakly stressed syllables.

Thus the words that we spell (in conventionalized early WS orthography) as

lamb, *lang*, *land*, *findan*, *ald*, *wilde*, *eorl*, *beornan*, *eorðe* became, by 1066,

lāmb, *lāng*, *lānd*, *fīndan*, *āld*, *wīlde*, *ēorl*, *bēornan*, *ēorðe* respectively, at

least south of the Thames. But the plural of *ċild* was *ċildru*, and *aldormann*, *englisc*, *hundred*, etc. still had short vowels in the first syllable; so did *under*, *scolde*, etc.

3. Within the same time period the distinction between the fully unstressed vowels *a* and *o* / *u* was lost, and the final *-m* of the dative ending *-um* became *-n*. A bit later, but certainly within the 11th c., the fully unstressed back vowel which was the product of that merger also merged with unstressed *e*. These changes are reflected in a massive confusion of inflectional endings in some late WS manuscripts.

Thus by about 1100 English had only one fully unstressed vowel, namely [ə], in posttonic open syllables.

4. In the 10th or 11th century the high front round vowels *y* and *ȳ* were unrounded to *i* and *ī* in Northumbrian and most of the Mercian area (though not in western Mercian); in WS and in the Severn valley the change did not occur. (In the southeast, including Kent, *y* and *ȳ* had already become *e* and *ē* a century earlier.) This change does not become clearly visible until after the conquest, when writing one's own local dialect becomes the norm. Thus (standardized) OE *fyllan*, *hyll*, *synne*, *cyning*, *cyssan*, *pytt*, *fyrst*, *fȳr*, *brȳd*, *hȳdan*, *mȳs*, etc. appear in northern and eastern Middle English as *fillen*, *hill*, *sinne*, *king*, *kissen*, *pit*, *first*, *fīr*, *brīd*, *hīden*, *mīs*, etc.; but in the south and southwest they are spelled *vullen*, *hull*, *zunne*, *kung*, *kussen*, *put*, *vurst*, *zur*, *brud*, *huden*, *mus*, etc., with the new French spelling "u" for /ü/ and /ü:/ (while in the Kentish *Ayenbite of Inwit* we find, for example, *zenne* 'sin' and *verst* 'first').

[Note: probably *æ* and *ǣ* were unrounded to *e* and *ē* in the northern dialects at the same time; in the southern dialects, and therefore in standardized OE, they had been unrounded at least a century earlier.]

5. In the 11th century the shortening rule (change #1 above) underwent a simplification of its triggering environment: instead of applying before clusters of three consonants, or two if at least two syllables followed, it now applied before clusters of two consonants, or before a single consonant if at least two syllables followed ("trisyllabic shortening"). The consonant clusters that had triggered lengthening (change #2 above) did *not* trigger this shortening rule; neither did /st/ (at least not consistently). This sound change is the most important source of the long ~ short alternation that appears in a large number of English inflectional and derivational sets of forms. For instance, among class I weak verbs:

Old English	Middle English (NE Midlands)
hȳdan, hȳdde	hīden, hidde
cēpan, cēpte	kēpen, kepte
fēdan, fēdde	fēden, fedde
mētan, mētte	mēten, mette
lādan, lādde	lēden, ladde (see below)
lāfan, lāfde	lēven, lafte (see below)

In various derivational formations:

fif, fifta	five, fifte ('fifth')
wīs, wīsdōm	wīs, wisdom
clāene, clāensian	clēne, clansen (see below)
wrāþ, wrāþþu	wrōth, wraththe ('wroth, wrath')
sūþ, sūþerne	south (= sūth), sutherne
fūl, fȳlþ	foul (= fūl), filth
ūt, ȳtemest	out (= ūt), utemest

In compounds:

hālig, hāligdæg	hōli, halidei (see below)
frēond, frēondscipe	frēnd, frendschip
gōs, gōshafoc	gōs, goshawk

Of course the change also affected isolated words, e.g.:

āscian	asken
--------	-------

Since the shortening of both \bar{a} and $\bar{æ}$ gives a , it is clear that this change occurred before the rounding of \bar{a} and before the merger of $\bar{æ}$ with a . However, most of the synchronically derivable shortened forms were adjusted later in ME (cf. ModE *led, left, cleanse, holiday*); the original outcome is preserved only in relatively isolated forms (*ask, wrath*) and forms with shifted meaning (e.g. the name *Halliday*). THIS RULE CONTINUED TO OPERATE on forms that entered the language later (e.g. *width, depth, divinity, legislate, bestial, chastity, ominous, profundity*, etc.).

6. Except in the southeast, all the OE diphthongs were monophthongized as follows:

$ea > \bar{æ}$ ($> a$; see below)	$eo > [\bar{o}]$, which $> e$ except in the south
$\bar{e}a > \bar{e}$	$\bar{e}o > [\bar{o}:]$, which $> \bar{e}$ except in the south
$io > i$; $\bar{i}o$ had already merged with $\bar{e}o$ except in the southeast	
ie and $\bar{i}e$ had already merged with y and \bar{y} , which developed as above	

Thus OE *earm, wearm, wearþ* 'became', *wearp* 'threw', *ear* 'you are' appear in ME (NE Midlands) as *arm, warm, warth, warp, art*; OE *drēam, bēan, hēap, grēat, dēad, dēaþ, ēare* 'ear' appear in ME as *drēm, bēn, hēp, grēt, dēd, dēth, ēre*; OE

heorte ‘heart’, *heofon*, *steorfan* ‘die’, *feorr* ‘far’, *deorc* ‘dark’, *meodu* ‘mead’ appear in (early) ME as *herte*, *heven*, *sterven*, *ferre*, *derk*, *mede*; OE *trēo*, *dēor* ‘animal’, *dēop*, *þēof*, *cēosan* ‘choose’, *frēond* ‘friend’, *bēon* ‘be’ appear in ME as *trē*, *dēr*, *dēp*, *thēf*, *chēsen*, *frēnd*, *bēn*.

For *io* the most obvious example is OE *siolfor*, ME *silver*; see also below.

Because *ie* and *īe* occurred only in the WS dialect of OE, their reflexes are found only in southern (mostly southwestern) ME. For example:

southwestern OE *hīeran* ‘hear’ > *hȳran* > ME *huren* (i.e., /hü:rən/)

other OE *hēran* > ME *hēren*

and further:

southwestern OE *ierre* ‘angry; anger’ > *yrre* > ME *urre* (i.e., /ürrə/)

midland OE *eorre* > ME *erre*

northern OE *iorre* > ME *irre*

7. Around 1100, after the above changes had occurred, *æ* merged with *a*. A few examples are given above; more straightforward examples are extremely numerous, e.g.:

OE *bær* ‘carried’, *smæl*, *æppel*, *þæt*, *wæter*, *bæc*, *bæþ*, *æfter*, *hæfde* ‘had’, *wæs*, *hwæt*, *hræfen* ‘raven’ appear in (early) ME as *bar*, *smal*, *appel*, *that*, *water*, *back*, *bath*, *after*, *havde*, *was*, *what*, *raven*.

The merger of *ea* with *æ*, and then of *æ* with *a*, eliminated a substantial complex of OE phonological rules.

8. In the 12th century OE *ā* was rounded and raised to *ō* in the southern dialects; this change spread steadily northward, until by 1300 all the Midlands dialects (i.e., those north of the Thames and south of the Humber) likewise had *ō*. Examples are very numerous; for instance, OE *māra*, *sāriġ*, *hāl* ‘whole’, *hālīġ*, *hām*, *ān* ‘one’, *sāpe*, *bāt*, *āc*, *rād*, *hlāf* ‘bread’, *āþ*, *snāw* appear in ME as *mōre*, *sōri*, *hōl*, *hōli*, *hōm*, *ōn*, *sōpe*, *bōt*, *ōk*, *rōd*, *lōf*, *ōth*, *snōw*. The lengthened *a* of *cāmb*, *lāng*, *hānd*, *cāld*, etc. (see 2 above), was of course also affected, giving *cōmb*, *lōng*, *hōnd*, *cōld*, etc.
9. In OE postvocalic *ġ* and *w* are best analyzed as consonants (because that is how they behave phonologically). In ME vowel + /j/ and vowel + /w/ sequences develop as units and so are best analyzed as complex nuclei (“diphthongs”). The details are not very important; what is important is that there were at first a large number of contrasting diphthongs, and that their variety was steadily reduced by merger. Examples: OE *liġeþ*, *weg*, *dæg*, *ryġe* ‘rye’, *eowu*, *clawu*, *trēowþ* appear in ME as *liēþ*, *wēi*, *dai*, *rīe*, *ewe*, *clawe*, *trēwth*; OE *Tīwesdæg*, *twēġen* ‘two’, *cāġ*, *drȳġe*, *flōwan*, *cnāwan*, *cnēow*, *fēawe* are ME *Tīwesdai*, *tweien*, *kei*, *drīe*, *flower*, *knōwen*, *knew*, *fēwe*.

- Diphthongs which appear almost exclusively in French loanwords are *oi* (*joie*, *noise*, etc.) and *oi* (*joint*, etc.); the only exception is *boi*, a word of unknown origin which appears also in the Frisian dialects. In many ME dialects French /ü/ and /üi/ were rendered by the diphthong *iu* (mostly spelled *u*, e.g. in *duke*, *June*, etc.).
10. In the 13th century, short nonhigh vowels in the first (i.e., stressed) syllables of disyllabic words were lengthened when the syllable was open; the results were \bar{e} , \bar{a} , \bar{o} . Since the rounding of OE \bar{a} had already occurred, the newly lengthened o-vowel merged with it in \bar{o} , but the newly lengthened a-vowel did not merge with anything. (The newly lengthened e-vowel merged with the reflex of OE \bar{a} in \bar{e} .) Examples are very numerous; for instance, OE *beran* ‘to carry’, *mete* ‘food’, *stelan* ‘to steal’, *specan*, *caru*, *talū* ‘account’, *macian*, *wadan*, *baþian*, *hopian*, *þrote*, *nosu*, *boren* are ME *bēren*, *mēte*, *stēlen*, *spēken*, *cāre*, *tāle*, *māken*, *wāden*, *bāthen*, *hōpen*, *thrōte*, *nōse*, *bōren*.
 11. Also in the 13th century, velar *g* began to be dropped in postvocalic position; further examples of diphthongs resulted. Thus OE *nigon* ‘nine’, *stīgan* ‘to mount’, *wegan* ‘to weigh’, *ēage* (Anglian *ēge*) ‘eye’, *flēogan* ‘to fly’, *sagu* ‘saw’, *āgen* ‘(one’s) own’, *boga* ‘bow’, *bōgas* ‘boughs’, *fugol* ‘bird’, *būgan* ‘to bend’ are ME *nīen*, *stīen*, *wēien*, *eie*, *fleien*, *sawe*, *owen*, *bowe*, *bowes*, *fūel*, *būen*.
 12. In the 14th and 15th centuries diphthongs also developed before the voiceless palatal and velar fricatives (which did not drop at the time). These diphthongs are still reflected in ModE spelling, e.g. *weight*, *height*, *taught*, *brought*, *dough*, *bough*; the differences in pronunciation between the vowels of these words demonstrate that the inventory of ME diphthongs was fairly large.