

Digraphs and Diphthongs: the Relationship between Spelling and Pronunciation in Old English

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0. Introduction

In OE, the following digraphs were used <ea, eo, ie, io>. The interpretation of these digraphs has been discussed and has caused much controversy. The aim of this essay is to see the ‘digraph controversy’ and examine the theoretical assumptions of each proposal.

The structure of this essay is: first, we review the traditional account of the digraphs, examining the assumptions of its basis in section one. The next section introduces some accounts which have been proposed against the traditional one. Then, we should like to consider the validity of the accounts proposed.

1. The traditional view on the digraphs

In the traditional explanation, the OE digraphs <ea, eo, ie, io>, our present concern, were derived from (i) the development of West Germanic diphthongs; (ii) the result of ‘breaking’ exercised on WG long and short vowels; (iii) the result of ‘palatal diphthongisation’; and (iv) the result of ‘back umlaut’. We shall take a brief look at each development in the following.

1.1 The development of WG diphthongs

It is considered that diphthongs of proto-Old English are:

iu
eu
au ai

The first changes in OE were the monophthongisation of /ai/ to /a:/; and a change of /au/ to /æu/. Hence, we can assume as follows:

iu
eu
æu (a:)

It is noticed here that all the diphthongs are made up with a front vowel and the back vowel /u/. At the next stage, further during OE, the second element of these diphthongs, i.e. /u/, was first changed to /o/, since it is less prominent than the first element; and then modified, adjusting the height to the height of the first vowel, so that, as a result, we had /iu, eo, æa/ (a). In addition, /iu/ and /eo/ merged into /eo/ (b):

a. iu		b.
eo	→	eo
æa (spelt ea)		æa (spelt ea)

1.2 Breaking

The process that the front vowels, both short and long, were diphthongised when immediately followed by velar or velarised consonants is called 'breaking'. It is believed that the sound change occurred at a very early period. The consonants which exercised 'breaking' are /l/ or /l/ +C, /r/ or /r/+C, or /x/ or /x/+C. The last consonant /x/ was usually

spelt <h>. Examples are:

/æ/ > /æu/ > /æa/: *sæh > seah

/æ:/ > /æu/ > /æa/: *næh > nēah

/e/ > /eu/ > /eo/: *fehtan > feohtan

/e:/ > /eu/ > /eo/: nēhwest > *nēohwest (> nēowest. Loss of /h/ medially between voiced segments occurs after ‘breaking’.)

/i/ > /iu/ > /io/: *tihhian > tiohhian

/i:/ > /iu/ > /io/: *betwīh > betwīoh

Two points should be noticed here: (i) the cause of the sound change; and (ii) the consequence of it.

What mechanism caused this diphthongisation? As we have seen, the vowels affected were all front vowels and they are followed by velar or velarised consonants, i.e. ‘back consonants’. The traditional and standard hypothesis is that ‘breaking’ is ‘vowel epenthesis’, the addition of a vowel glide from the front vowel to the following back consonant. This process can be supported by the vocalisation of /l/ in dialects in PDE. Handbooks use an example such as ‘milk’ /mɪlk/ → /mɪɫk/ (see Hogg 1992a: 103; Lass and Anderson 1975: 83).

The second point, and this is the cause of the ‘digraph controversy’, is that, if we accept ‘breaking’ exercised on both long and short WG vowels, then we also have to accept the four way contrasts of vowels and diphthongs in OE: short and long vowels; and short and long diphthongs. This is the exact point to which attention has been called since 1939. We will discuss this in more detail later.

1.3 Palatal diphthongisation

When palatal consonants /j, tʃ, ʃ/ spelt <g, c, sc> immediately precede the front vowels /æ(:)/ and /e(:)/, these vowels are diphthongised and came to be written as <ea, ie>, just as what we had by means of 'breaking'. The mechanism is called 'palatal diphthongisation' and is thought to have occurred later than 'breaking' in the standard account.

/æ/ > /æa/ : sceatt 'treasure', ceaf 'chaff', geaf 'give'.

/æ:/ > /æa/ : scēap 'sheep', cēace 'jaw', gēar 'year', gēafon 'they gave'.

/e/ > /eo/ : scieran 'cut', giefu 'gift'.

/e:/ > /eo/ : gīe 'ye' (EWS).

Here we will offer an answer to the question: are the sounds we obtained through 'palatal diphthongisation' the same as those through 'breaking'? The answer is "no", because it is not conceivable that the results of the two different operations (one, the result of the influence of the preceding consonants, and the other, the result of the influence of the following) brought the same sounds. However, it is also inconceivable that the diphthongs developed through 'breaking' and 'palatal diphthongisation' were not so greatly different as to result in a phonemic contrast. This view has been held by traditional philologists, though attacked recently.

1.4 Back umlaut

At the close of the pre-historic OE, there occurred a sound change called 'back umlaut', which was similar to the 'breaking' of the earlier period. By the operation of 'back umlaut', the front vowels /æ, e, i/, when followed after a single consonant by a back vowel, are diphthongised and spelt <ea, eo, ie> respectively. Unlike 'breaking', 'back umlaut' was tar-

geted towards short vowels only.

/i/ > /io/ : tiola ‘well’, liomu ‘limbs’, siofan ‘seven’.

/e/ > /eo/ : heofon ‘heaven’, eofor ‘boar’, beofor ‘beaver’.

/æ/ > /æa/ : earun ‘are’, feasum ‘fringes’, featu ‘vessels’. (Mercian)

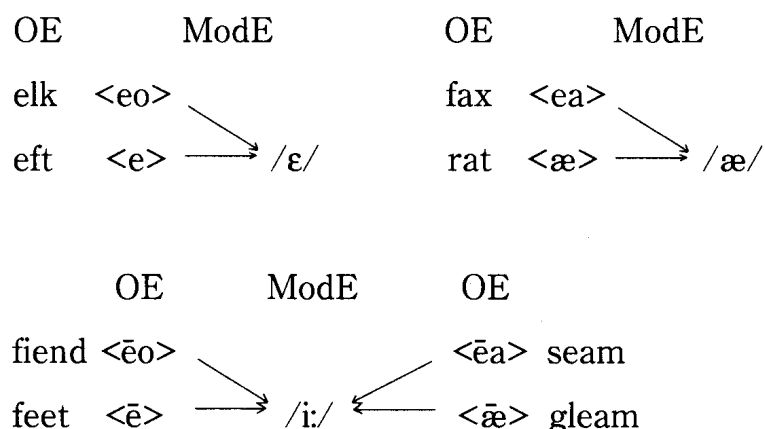
1.5 Assumptions of the traditional account

So far we have seen the traditional account for the sources of the OE diphthongs represented by digraphs, by which we understand that they are the developments of WG diphthongs, of ‘breaking’, ‘palatal diphthongisation’, and of ‘back umlaut’. This traditional view is based upon the following three assumptions:

- a) First, it is linguistically plausible that sound change is stable. Therefore, if it is certain WG diphthongs developed as diphthongs, the spellings of <ea, eo, io> represent diphthongs in OE.
- b) It is also plausible that the same spelling represents the same sound. Then, the spellings <ea, eo, io> derived from ‘breaking’ on /æ:, e:, i:/ show the same sounds as derived from WG diphthongs.
- c) It is again linguistically plausible that a sound change would not affect short and long vowels in a different way. Hence, we can assume that short vowels were also under the operation of the same mechanism of ‘breaking’ on long vowels, so that the operation brought about ‘short’ diphthongs that would contrast with ‘long’ diphthongs only in length. A similar assumption could be made as to diphthongs created by ‘back umlaut’.

The above assumptions lead us to believe that <ea, eo, io> represent diphthongs both short and long in OE. This four way contrast, though

there was no such contrast before and after the Old English period, could be supported by the historical developments of the entities represented by long and short digraphs, i.e. long <eo> and long <eo> came down as long vowels in ModE, as did long <æ> and long <ea>, on the other hand, short <e, eo> and short <æ, ea> emerged as short vowels:



From the above facts, we can assume that there was a contrast between long and short digraphs in OE.

2. Attacks on the traditional account

To this traditional view on the OE digraphs, many linguists have argued its improbability. The views of the opponents can be divided into four groups, which we shall see in the following.

2.1 Group (a)

The first position, actually first in the chronological sense, is taken by Daunt (1939). She argues that the long digraphs represent true diphthongs, but, as to short ones, the second element of the digraphs is a diacritic indicating that the following consonant is a back consonant. In her words, 'there were, in the true sense of the word, no "short diphthongs", and that no such sound-changes as "breaking", "palatal diph-

thongisation”, or “back umlaut” ever “took place” (Daunt 1939: 134). Thus, weorpan ‘throw’: /wepan/; liomu ‘limbs’: /limu/.

Her central argument relies on an extra-linguistic factor that the earliest OE scribes were taught by Old Irish scribes their practice that vowel diacritics are used to indicate the colouring of the following constant. Mossé (1945) also takes a similar account.

2.2 Group (b)

The second position is represented by Stockwell and Barritt (1951), which brought about a sequence of discussion with Kuhn and Quirk. Their position is that the long digraphs represent diphthongs, but the short ones allophones of short vowels. Hence, when there are pairs of <æ>: <ea>; <e>: <eo>, each digraph <ea> and <eo> tells a velarised allophone of a front vowel respectively.

Provoked by the Stockwell and Barritt’s view, Kuhn and Quirk (1953) defend the traditional philological position. Kuhn and Quirk, after examining Daunt’s, Mossé’s, and Stockwell and Barritt’s accounts, attack the assumptions of their arguments, and further present evidence which might be taken as indicating that the short digraphs were phonetically distinct in OE. As a conclusion, Kuhn and Quirk (1953: 155) state that ‘we recognise the usefulness of descriptive techniques in the treatment of historical problems, but we believe that the new interpretations of the digraph spellings, as they have been thus far presented, are untenable.’

2.3 Group (c)

Hockett (1959) takes a different position. Hockett (1959: 575) claims that ‘The spellings *ea*, *eo*, and *io* represent, among other things, short syllabics phonemically distinct from those represented by *ae*, *e*, and *i* (or

any other one-letter spelling) — the so-called “short diphthongs”. So far, his claim is along with the traditional view. However, taking evidence from Anglian dialect, he maintains that the short digraphs represent monophthongal vowels.

2.4 Group (d)

The final position in our discussion is taken by Lass and Anderson (1975). Their theory is based on generative phonology. They question ‘the reason why the long and short digraphs (which were after all orthographically identical) had to represent entities that were phonetically different at all’ (Lass and Anderson 1975: 81). They extend the traditional claim that the broken long vowels fell together with the original diphthongs, to include the short vowels as well. Thus, in their position, each vowel in *neah* ‘near’, which indicates the ‘breaking’ of a long vowel, and *seah* ‘saw’, which results from the ‘breaking’ of short vowel, is identical. Lass and Anderson (1975: 82) state that ‘In essence we adopt the traditional view that breaking is epenthesis of a back vowel between a front vowel and a back (continuant) consonant, with the addition that the two derivational classes of breaking diphthongs yield phonetic sequences identical both to each other and to the diphthongal nuclear derived from an underlying (pre-breaking) source’.

3. Discussion

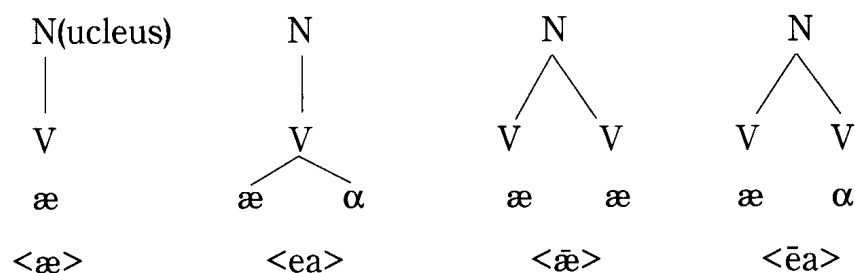
So far we have looked at both the traditional view and its alternatives on the interpretation of the OE digraphs. As I suggested earlier, the point of the controversy is whether we accept the short and long contrast in diphthongs on OE as advocated by traditional philologists. The opponents towards the traditional view all start their argumentation from the

denial of the short and long contrast in diphthongs. Therefore, it is safe to say that the weakest argument of the conventional account lies in the acceptance of the contrast. The contrast in the phonological system is in fact unusual throughout the development of the English language.

Then, our question is: are the alternative explanations adequate enough to discard the traditional account? Each of them also poses problems, which include the following. As to position (a), its argument that the origin of the digraphs is from the practice of Old Irish scribes is dubious, because it is almost impossible to verify (see Kuhn and Quirk 1953: 148–9). Stockwell and Barritt in position (b) maintain that there were no minimal pairs in OE distinguished by <æ> and <ea>, against which Kuhn and Quirk (1953: 154–5) present a number of counter-evidence: *ærn* ‘house’: *earn* ‘eagle’; *bærn* imperative ‘burn’: *bearn* ‘child’; *fær* ‘journey’: *fear* ‘bull’, etc. The explanation in position (c) is a valid one as far as Mercian is concerned but it is inadequate in general application of their theory to other dialects. Position (d), as mentioned before, relies on generative phonology, which rejects the traditional view that sound change is irreversible and permitted its reversibility, though now unacceptable any more. To these deficiencies, we should add one more: most of the opponents reject ‘palatal diphthongisation’. The denial of ‘palatal diphthongisation’ leads us to leave unsolved the mechanism of the sound change of *cȳse*, a well-known test word for the relative dating of palatal diphthongisation and *i*-umlaut (see Kuhn and Quirk 1953: 146–7; Hogg 1992: 120).

From the above discussion, we understand that the alternatives to the traditional view seem unable to offer satisfactory accounts on the digraphs. Rather, in many cases, the traditional view is more explanatory, except its unique the short and long contrast in diphthongs. If we could accommodate ‘short’ diphthongs in the phonological system in OE, we could say

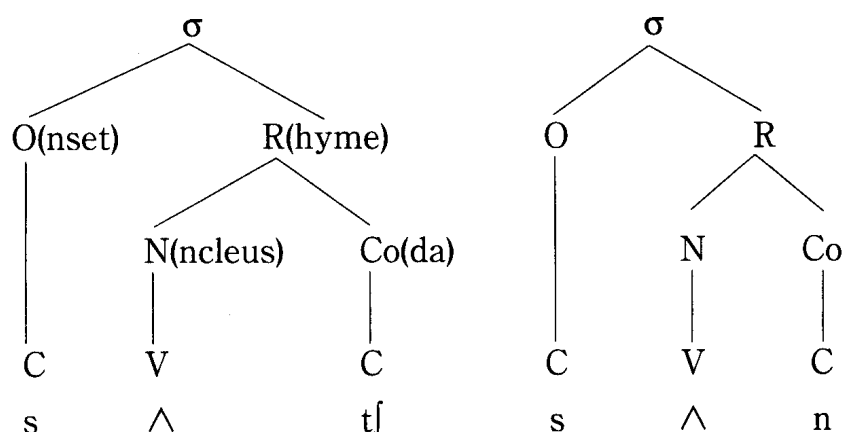
that the traditional account is essentially correct. Lass's (1994: 47) explanation, I think, best illustrates the status of 'short' diphthongs. Lass (1994: §3.2) defines a long vowel and a diphthong as /VV/, while a short vowel as /V/. As it is inconceivable that a 'long' diphthong could be defined as /VVV/, it is reasonable to assume the following:



The above would be illustrated in terms of comparative duration:

	V	V
Long vowel	æ	æ
Diphthong	æ	α
Short vowel	æ	
Short diphthong	æ α	

Although this treatment of 'short' diphthongs seems unnatural, it is not necessarily so. Consider affricates in PDE. While they have the duration of single consonants, there is a transition of qualities within the duration:



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If we assume that there were similar vowels in OE, it is no wonder OE had the 'short' and 'long' contrast in diphthongs.

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