



Jan Kochanowski University Press

This is a contribution from *Token: A Journal of English Linguistics*
Volume 14/2022.

Edited by John G. Newman and Marina Dossena.

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English phonology between Old and Middle English

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1. Introduction

In the textual record of English there is an apparent break between Old and Middle English. This is due to two factors. The first is that the West Saxon koiné of Old English was no longer written after the Norman invasion in the mid-eleventh century and the second is that the return of documents in Middle English did not set in until the latter half of the thirteenth century. Thus to trace the development of English seamlessly from the Old to the Middle English period (Smith 2007: 107-126) is not possible and it can only be assumed that on a vernacular level the language continued to change gradually in the transition period at the beginning of Middle English, an assumption which is supported by such detailed investigations of what we know of late Old English and early Middle English phonology as that in Weġna (1978: 34-159).

The great social and political upheavals caused by the Norman conquest and the subsequent introduction of a feudal system of land ownership in England, while reflected in language, are confined to the open class of the lexicon. Whether the gradual decay of grammatical inflections was furthered by the contact of certain sections of English society with French-speaking Normans is a matter of debate. What is certain is that this process was not triggered by this contact. The West Saxon koiné (Campbell 1959; Lass 1994) definitely camouflaged the blurring of inflectional endings which can be glimpsed on occasions in the Old English textual record and which was most advanced in the north of the country. Factors such as the language shift of Brythonic-speaking Celts to Old English (Hickey 1995, 2012) and the adstratal mixture of Anglian and Old Norse in the North and

North-East of England (Lutz 2012) can be safely assumed to have contributed to the decreasing clarity of grammatical endings.

The appearance of diverse documents with different regional origins in the Middle English period makes global references to language more difficult than this might appear to be the case for the late Old English period. But assuming a continuity of vernaculars then there must be an unbroken link between the forms of language in both periods, irrespective of the textual attestations (Ritt – Schendl 2005).

2. Change in medieval English phonology

Leaving aside the difficulty of determining the nature and extent of the transition from late Old English to early Middle English one can nonetheless ascertain that certain changes took place in the language in the few centuries which this transition encompassed. The focus in this article is on phonology and hence on the changes in the English sound system at this time. These changes can be grouped as a set of losses and a set of innovations. The first group is shown in the following table.

Table 1: *Losses from Old to Middle English*

1. Consonantal length
2. Regular quantity of syllable codas
3. Umlaut and umlaut-similar effects
4. Front rounded vowels
5. Four-way distinction with low vowels
6. Velar fricatives

2.1 Loss of consonantal length

A number of these developments are linked to each other. For consonants, the loss of systemically distinctive length was the most far-reaching change. Words such as *pyffan* ‘puff’, *cyssan* ‘kiss’, *settan* ‘set’, *siþþan* ‘since’, *freoðurwebbe* ‘peaceweaver’ showed an internal geminate in Old English but this was simplified in later Middle English (Kurath 1956; Britton 2012). Originally, there was a complementary distribution of long and short vowels and consonants in stressed syllable rhymes such that the latter either consisted of a long vowel and a short consonant or a short vowel and a long consonant

(essentially the quantity distribution rule which still applies in Swedish, cf. *vit* [vi:t] 'white' and *vitt* [vitt] 'knows').

The coda quantity rule was disturbed in the late Old English period due to phonetic lengthening of short vowels before a cluster consisting of a nasal and homorganic stop, e.g. *blind* /blind/ > /bli:nd/, *mind* /mind/ > /mi:nd/ (Weġna, 1978: 34-39), leading to so-called 'superheavy' syllables. The lengthening applies to monosyllables as demonstrated by word pairs such as *cild* 'child' with /i:/ but *cildru* 'children', a polysyllabic form with /i/ (Lahiri – Fikkert 1999).

This development happened in the tenth century (Strang 1970: 341) or perhaps already in the ninth century (Lass 1987: 125). It meant that later generations of language learners no longer concluded that there was a complementary distribution of length for vowels and consonants and the rule was removed from English phonology.

(1) Rise of superheavy syllables in late Old English

V(CC)	>	VV(CC)
<i>blind</i> / blind /	>	<i>blīnd</i> / bli:nd /
<i>mind</i> / mind /	>	<i>mīnd</i> / mi:nd /
<i>climb</i> / klimb /	>	<i>clīmb</i> / kli:mb /
<i>milde</i> / mild /	>	<i>mīlde</i> / mi:ld /

2.2 Symmetry in the vowel system

The vowel system of late Old Saxon is taken to have been symmetrical with long and short vowels existing in pairs, see Table 2. This symmetry requires a number of assumptions which can be contested and which may not have been valid across the different dialects of Old English. For instance, the long front high rounded vowel /y:/ is, if at all, a feature of late West Saxon known as 'unstable *i*' (Quirk – Wrenn 1957: 140-141) because it appears in different spellings, i.e. as *ie*, *i* and *y*, as in *gelīefan* > *gelīfan* > *gelyfan* 'believe'.

Table 2: *Vowel system of Old English (late West Saxon, Lass 2006: 53)*

	Long vowels				Short vowels			
	[ɑ:] /[y:]	[e:]	[æ:]	[u:] [o:] [ɑ:]	[i]/[y]	[e]	[æ]	[u] [o] [ɑ]
i:- i	<i>īs</i>		‘ice’		<i>is</i>		‘is’	
y:- y	<i>bȳre</i>		‘cowshed’		<i>byre</i>		‘child’	
e:- e	<i>bēn</i>		‘plea’		<i>ben(n)</i>		‘wound’	
æ:- æ	<i>dǣl</i>		‘part’		<i>dæl</i>		‘valley’	
ɑ:- ɑ	<i>hām</i>		‘home’		<i>ham(m)</i>		‘ham’	
o:- o	<i>hōf</i>		‘hoof’		<i>hof</i>		‘enclosure’	
u:- u	<i>hūs</i>		‘house’		<i>sum</i>		‘some’	

2.3 Front rounded vowels

The front vowels of Old English do not show the type of regularity which one has in a language like German where /y(:)/ and /ø(:)/ are central to the phonology and morphology of the language. It is true that the mid rounded front vowel was initially characteristic of plurals which exhibited umlaut (Bennett 1969) such as *fōt* /fo:t/ ‘foot’. But by Old English the original plural **fōt* had been unrounded to *fēt* /fe:t/ ‘feet’ and so the only front rounded vowel was /y/. This vowel is nonetheless amply attested, cf. /y/: *cyrice* ‘church’, *cynelic*, ‘kingly’. The /y/ vowel had arisen through umlaut, originally the fronting of a back rounded vowel when followed by a high front vowel or /j/ in a following syllable. This was a morphological process in the West and North Germanic languages and remnants are found in these languages today, with some still visible in English today, cf. *man* : *men*, *mouse* : *mice* (these are now opaque, i.e. the umlaut cannot be recognised as a regular

sound change). With the unrounding of /y/ in Middle English (latest in the West Midlands) English lost all front rounded vowels.

2.4 Low vowels in Old and Middle English

The consistent use of <*æ*> versus <*a*> in late West Saxon manuscripts for vowels which have both long and short reflexes in Modern English would suggest that latterly there were two low back vowels and two low front vowels in Old English (much as there are in present-day Finnish, for instance).

(2)	æ: - æ	<i>dǣl</i>	‘part’	<i>dæl</i>	‘valley’
	ɑ: - ɑ	<i>hām</i>	‘home’	<i>ham(m)</i>	‘ham’

This pattern did not continue into Middle English as the long /æ:/ vowel was raised to [e:], as in [de:l] ‘deal’, with later raising as part of the Great Vowel Shift. The short *ash* vowel was frequently retracted to [a] as in *dale* where the vowel was also lengthened and thus affected by the long vowel shift of the late Middle English and Early Modern English periods (Great Vowel Shift).

The retracted vowels /ɑ: - ɑ/ split with the short one centralising to [a], thus generally coalescing with the short /æ/ vowel (Lass 1976). Similarly to the long front vowel /æ:/, the long low back vowel /ɑ:/ was raised (in West Saxon and southern forms of Anglian, though not in varieties in the far north which formed the input to later Scots). This raising of /ɑ:/ continued throughout the Middle English period and was one of the inputs to the long vowel shift. Examples of words showing the original long low back vowel, which was later raised, are: *stān* /sta:n/ ‘stone’, *hām* /ha:m/ ‘home’.

2.5 Velar fricatives

Old English had four systemic segments at the velar point of articulation, two stops and two fricatives.

(3)	velar stops	velar fricatives
	k g	x γ

The symmetry which this might imply only refers to the simple existence of these segments. On a systemic level their relative status varied considerably. The two stops were part of the lexical structure of words and are to this day.

The voiceless velar fricative was inherited from earlier stages of Germanic and was represented by <h>. However, in syllable-initial position this sound no longer existed, or if it did, then only as a realisational option for [h] as in *hnutu* 'nut', *hlaƿ* 'loaf', etc. In medial and final position the voiceless sound was more stable, e.g. *hlahhan* 'laugh' when a geminate can be posited: /hlaxxan/ at least for early Old English. In medial position the sound was to disappear in Middle English unless it shifted its point of articulation to the front of the mouth as in *laugh* /la:f/ (Hickey 1984). In word final position /-x/ also disappeared, often involving other processes such as the metathesis attested in the form *purh* [θurx] 'through'; an instance of word-final /-x/ subject to velar to labial shift is *ruh* [ru:x] > [rɔx] > [rɔf] > [rʌf] 'rough'. Elsewhere, where /x/ was a non-final element of a syllable coda, it was deleted but its quantity was transferred to the nucleus of the same syllable, this then leading to a long vowel as in *niht* /nixt/ > [ni:t] 'night' or *riht* /rixt/ > [ri:t] 'right' (Horobin – Smith 2002: 49; Lass 1987: 31; Minkova 2013: 132). This vocalisation of the voiceless velar fricative came to apply to all varieties of English with the exception of conservative Scots where it is still found in a word like *enough* [ɪ'nʌx] or in the Scottish Gaelic loanword *loch* /lɔx/ 'lake'.

The voiced velar fricative was allophonic in nature, representing /g/ in positions of high sonority, chiefly between vowels as in *fugol* [fuɣol] 'bird'. Like its voiceless counterpart, this sound was also vocalised during the Middle English period, cf. the word *fowl* which is the present-day reflex of Old English *fugol* (the Middle English word *bridde* 'young bird' later adopted the general sense of 'bird').

3. Innovations in medieval English phonology

By innovations are meant here the appearance of phonological features/segments in Middle English which were not present in Old English or which at least did not have the same status.

Table 2: Innovations from Old to Middle English

1. Systemically contrasting voice with fricatives (f ≠ v, θ ≠ ð, s ≠ z)
2. Phonemic affricates /tʃ/ and /dʒ/
3. Contrastive word stress
4. Open syllable lengthening
5. Rise of schwa for short unstressed vowels

3.1 The voice contrast among fricatives

The standard case of status change in Middle English phonology involves the parameter ‘voice’ with fricatives (see the comprehensive treatment in Minkova 2011 with references therein). In Old English voiced fricatives (Lass 2006: 54) occurred in positions of high sonority, typically between two vowels, thus a word like *wif* [wi:f] ‘woman’ was *wifas* [wi:vas] with a voiced [v] in the plural. This led to a morphophonemic alternation of voiceless and voiced fricatives which still exists in English, cf. word pairs such as *roof* : *rooves*, *knife* : *knives* (Lass 1984: 57).

The status of [v, z, ð] changed in Middle English when grammatical endings were lost and unmotivated contrast arose with these fricatives, cf. the voiced fricatives in final position such as *bapian* /ba:ðian/ > /ba:ð/ > /ba:ð/. This led to a contrast between noun and verb arising, cf. *bath* versus *bathe* in present-day English. This held for other fricatives as well, cf. *belyfan* /belēfan/ > *believe* with the noun *belief* retaining the voiceless fricative from Old English.

An additional source of the voice contrast with fricatives is formed by many loanwords from French which had voiced fricatives in initial or final position, e.g. *zeal*, *seize*. Old French verbs which entered English in the Middle English period also showed voiced fricatives in intervocalic position, e.g. *abuser* [abyzer], later [ə'bjuz]. Here the voiced fricative also appeared in word final position with the loss of the original final syllable from the Old French verb.

It is unlikely that French loanwords alone were responsible for the establishment of phonemic voiced fricatives. This has not happened with many other languages, which also borrowed French words, but did not import the sounds they included into their phonologies. For instance, the Scandinavian languages, such as Swedish, have words like *journal*, *etage*

from French but the voiced sibilants are consistently voiceless ones. So both inherited English words and borrowed French words ‘conspired’ to increase the tokens of final voiced fricatives through suffix loss and hence to establish the voice ≠ voiceless contrast for fricatives and for obstruents in general in word-final position in English, a feature which the language has to this day.

3.2 Phonemic affricates

In Old English, the affricate /tʃ/ and the palatal approximant /j/ were the result of palatalisation in words like *cinn* /tʃinn/ ‘chin’, *cidan* /tʃi:dan/ ‘chide’; *gielðan* /ji:ldan/ ‘yield’, *geard* /jard/ ‘yard’. The chronology of this palatalisation is complicated, especially in relation to umlaut which, going on words such as *cyning* /kynɪŋ/ ‘king’, would appear to have come later as palatalisation did not affect it (Lass 1994: 53-56). Parallel to these developments was the affrication of /g/ in post-nasal, pre-front vowel position, e.g. *sengean* /sendʒan/ ‘singe’ (Lass 1994: 58; Stenbrenden 2019).

Given the above situation, the affricates of Old English can be seen as contextually determined: their occurrence dependent on a front phonotactic environment. It was not until the Middle English period with the appearance of /tʃ/ and /dʒ/ before low and back vowels, in French loanwords like *chastise* /tʃastɪsɪz/ and *join* /dʒɔɪn/ respectively, that affricates as systemic units, what Minkova (2019: 160) calls contour affricates, became established. Another development which fed into the phonemicisation of affricates is the retraction of stressed vowels from front to back vowels in words like *ceosan* /tʃeosan/ > *choose* /tʃu:z/; *ciowan* /tʃiowan/ > *chew* /tʃu:/.

3.3 Contrastive word stress

Primary stress in Old English rested on the lexical root of a word (Minkova 2013: 294). At this stage the language had long since developed the type of stress accent – stressed syllables are longer and louder than unstressed ones – which is still typical of English and other Germanic languages. Prefixes with nouns could also take stress as in ‘*andswaru* (*answer*) but verbs had root stress as in *for* ‘*giefan* (*forgive*).

With the influx of Romance words in the Middle English period alternative stress patterns arose. By and large a system for foreign words begins to emerge in late Middle English which demands stress on the first

heavy syllable starting from the penultimate syllable of a word and moving leftwards, i.e. towards the beginning of the word.

From the late Middle English period it is known that functional stress shift arose, which resulted in the modern pattern seen in word pairs like the following.

- (4) a. 'convert (noun) : con'vert (verb)
 b. 'perfect (adj) : per'fect (verb)

The later stress in the verbs may have been due to the penultimate stress rule applying to the verbs when they still had a final ending, e.g. *converter* would have been *con'verter* which on loss of the ending retained the stress position which was then final. The penultimate stress rule applied to nouns as well and this led to patterns like 'convert which again were retained. The net result was a stress pattern contrast in which verbs show later stress.

3.4 Open syllable lengthening

This is a phonological process which started in the north of England in the thirteenth century and affected the high vowels /i/ and /u/ in the following century (Luick 1964: 405) during which it spread to the other dialect areas (Minkova 1982: 29). It is one of the major sound changes of early Middle English and involves lengthening and lowering as seen in the following examples.

- (5) /i/ > /e:/
 wice *weke* 'week'
 pise *pese* 'peas'
 /e/ > /ɛ:/
 melu *mele* 'meal'
 mete *mete* 'food'
 /a/ > /a:/
 bacan *bake* 'bake'
 gamen *game* 'game'
 /o/ > /ɔ:/
 hopa *hope* 'hope'
 nosu *nose* 'nose'

/u/	>	/o:/
<i>wudu</i>	<i>wode</i>	‘wood’
<i>duru</i>	<i>dore</i>	‘door’

This is known as ‘open syllable lengthening’ (Brunner 1963: 17; Berndt 1960: 25-27; Dresher – Lahiri 1999; Ritt 1994). However, on closer observation it can be seen that it involves two processes. On the one hand, vowels are lengthened in open syllables and on the other, they are lowered (Jespersen 1909: 114-115). The lengthening has been assumed to be connected with the loss of a final schwa with words which were originally disyllabic. The change can be interpreted as maintaining the quantity of the entire word, i.e. the quantity of the deleted schwa was maintained by lengthening the preceding vowel (Minkova 1982: 44, 1991: 87-90).

3.5 Rise of schwa as an unstressed vowel

The writing of late West Saxon would suggest that short unstressed vowels were still pronounced with their full value. A word like *stanas* ‘stones’ shows the use of <a> for the short unstressed vowel which in Middle English comes to be represented as <e>. This would imply that schwa had established itself by Middle English as the default realisation of short unstressed vowels. This assumption is supported by the development of many phrasal constructions to single words in which the unstressed word of the original construction was reduced to schwa, cf. *on slæpe* > *asleep*, *on life* > *alive*.

4. Changes in phonotactics

In the history of English an area of its phonology which, in the changes it experienced, contributed substantially to the altered ‘look and feel’ of the language is phonotactics, the sequences of sounds which are permissible at any one time.

In Old English syllable onsets could contain segments in sequences which became impermissible in Middle English. For instance, /h/ and /w/ could occur before /r/ or /l/ as in *hlaf*/hl-/ ‘loaf’, *hrad*/hr-/ ‘quick, active, ready’ or *writan* /wr-/ ‘write’; /h/ could also occur before /n/ as in *hnutu* /hn-/ ‘nut’

(Lutz 1991: 29). Such clusters were simplified during Middle English and only the second element of each cluster prevailed.

Initial clusters like /fn-/ in *fneosan* 'sneeze' were changed to /sn-/ (Lutz 1991: 75-78). Some combinations, which are no longer possible in standard varieties of English today, were continued into Middle English and (much later in regional dialects), e.g. /gn-/ and /kn-/, as in *gnagan* 'gnaw' and *cnēo* 'knee', respectively.

5. Conclusion

The textual record for late Old English and early Middle English suggests a break in the language. While this probably did not exist in this extreme form in the spoken language there are certain changes in the sound system which justify the classification of the phonology of Old English as typologically different from that of Middle English (Weĭna 1978: 34-35; Breivik 1991). The sound system of Old English, much like its grammar, retained its largely Germanic character (Ringe 2006: 213-233). For English, the system gradually changed, partly as a result of contact with Anglo-Norman but also, if not primarily, due to changes already initiated in the Old English period.

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