

# WAS MIDDLE ENGLISH A TEMPLATIC LANGUAGE?

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## 0. Introduction: late Old English and Middle English sound changes

Late Old English (OE) and Middle English (ME) up until approximately the fourteenth century is a period characterised by a number of sound changes that have presented phonologists working in various frameworks, ranging from possibly the first all-encompassing Neogrammarian attempt by Luick (1914) to the contemporary Optimality Theoretic approach (e.g. Bermúdez-Otero 1998), to devise a complete picture for what appears to have been a series of interrelated quantitative changes. Between these two 'extreme' points of reference, various SPE-type of analyses have been presented in the past (see 1.1). The issue was also taken up by Trubetzkoy (1939) and Murray (2000), for example, arguing for syllable cut prosody. More recently, the interest has also been revived in the framework of Natural Phonology as presented in Ritt (1994), for example, from whom the short-hand terminology to be used has been adopted. The principle of mora-preservation, foot structure (and closely connected to it, the so-called Germanic foot) and the like have been argued for (Dresher & Lahiri 1991, Lahiri & Fikkert 1999, etc.). Open syllable lengthening and trisyllabic shortening coupled with analogy, to be discussed shortly, have also been resorted to as a means of explaining the somewhat irregular behaviour of open syllable lengthening (Lahiri & Dresher 1999). These changes, in a rather non-chronological fashion, include MEOSL (the topic of this paper), TRISH (trisyllabic shortening), SHOCC (shortening before consonant clusters) and HOL (homorganic lengthening). Some of these issues have been tackled in Starčević (2006) where the possibility of an analysis couched in terms of CVCV phonology is sketched out. A somewhat revised version will be presented in what follows.

## 1. MEOSL

This section offers a discussion of MEOSL, concerning its result on OE short vowels, some of the attempts made to describe it and its place in the history of the language with respect to other OE and ME changes.

### 1.1. MEOSL -some of the attempts

Middle English Open Syllable Lengthening, or MEOSL, is one in a series of sound changes affecting ME which, in standard textbook analysis, affects the OE

short stressed vowels in open syllables. The change seems to have started earlier in the North (twelfth century) than in the South (thirteenth century). The five inherited short vowels of OE, i.e. /i/, /e/, /a/, /o/ and /u/, were lengthened to /e:/, /ɛ:/, /ā/, /ɔ:/, /ō/ and /o:/, /ō/ (e.g. Moore 1929, Brunner 1970, Wright & Wright 1928, Wardale 1958). There is general disagreement over how and when the two high vowels /i/ and /u/ were lengthened and/or lowered. In standard textbook analyses these two vowels are not invariably included as target vowels for MEOSL. What seems certain is that by the thirteenth century, in a first wave, the three non-high vowels lengthened in open syllables spreading to the South. Somewhat later in the thirteenth century, in a second wave, in the Northern dialects the two remaining OE short vowels also underwent MEOSL also spreading to the South but never affecting as many words as in the case of the non-high vowels (see, for example, Lieber 1979).

If MEOSL had simply involved a change in the quantity of the vowels affected, the following ME rhyming pairs would be expected, the first one showing the ME continuation of the OE short vowel, the second an original OE long vowel (adapted from Lieber 1979: 5f; examples from the same source):

(1) ME rhyming pairs

- ME ī (< OE i) – ME ī (< OE ī)  
 ME ū (< OE u) – ME ū (< OE ū)  
 ME ē (< OE e) – ME ē (< OE ē)<sup>1</sup>  
 ME ô (< OE o) – ME ô (< OE ô)  
 ME ā (< OE a) – ME ā (< OE ā)<sup>2</sup>

Yet, the only possible rhyming pairs attested in the thirteenth and fourteenth century are those listed below:

(2) attested ME rhyming pairs

- ME ē (< OE i) – ME ē (< OE ē)  
 ME ô (< OE u) – ME ô (< OE ô)  
 ME ē (< OE e) – ME ē (< OE æ)  
 ME ô (< OE o) – ME ô (< OE ā)  
 ME ā (< OE a) – ME ā (< OE ā) (cf. footnote 2)

The following pairs are all attested in Barbour's *Bruce* and *Cursor Mundi*: *stere-were*, with *stere* showing ME ē (OE *styrian* 'to stir' with the regular late OE change

<sup>1</sup> Note that in OE there was no opposition between  $\bar{e}$  and  $\bar{e}$ . The vowel shown as  $\bar{e}$  was /e:/. This is also supported by the ME rhymes cited in (2).

<sup>2</sup> This last rhyming pair would only be viable in the Northern dialects where the spontaneous (in other words, environment-independent) change OE  $\bar{a}$  > ME  $\bar{a}$  (e.g. OE *bān* > ME *bone*  $\bar{a}$  'bone') did not occur or was sporadic. Wardale (1958: 49) claims that this 'isolative' (i.e. not 'combinative' in her use of the term) change appears first in the East Midlands from where it spreads gradually but never reaches those areas beyond the Humber. See also Dobson (1968: 469, §7 and Note 1 and 2) on the question of quantity variation inherited from ME in sixteenth to eighteenth century English.

*i* < OE *y*)<sup>3</sup> rhyming with *were* (OE *were* 'man'),<sup>4</sup> *gome* - *dōme*, the former representing OE *guma* 'man', the latter OE *dōm* 'judgement' (the vowel here being ME  $\bar{o}$ ). Since the traditional sources take the lengthening (and lowering) of the OE non-high short vowels to be uncontested, explicit rhyming data are lacking on these vowels. Yet, according to MEOSL, the following words were possible rhymes: *berren* (< OE *beran* 'to bear') - *leren* (OE *lāran* 'to teach'), the rhyming vowel being  $\bar{e}$ ; *bore(n)* (OE *boren* 'born') - *stroke(n)* (OE *strācian*), with  $\bar{o}$  as the rhyming vowel. For a classical SPE-type of analysis involving ordered rules, disjunctive environments, the Elsewhere Condition (Kiparsky 1973, 1985) see Anderson (1974), Lieber (1979) and Malsch & Fulcher (1975), for example. As an illustration, consider Minkova's (1982) formulation of MEOSL:

(3) MEOSL - traditional formulation

$$[_1(C)V[_2C_1]_1 e \#]_2$$

Some clarification is in order at this point: the round bracket shows the optionality of the word-initial consonant (C), the second C enclosed in square brackets is ambisyllabic, i.e. it belongs to both the first ((C)VC) and the second syllable (C e) indicated here with subscript '1' and '2' that encroach upon each other's domain; in addition, the notation suggests that the rule applies only to words that contain a single intervocalic consonant; the 'e' at the end of the structural description stands for /ə/, the '#' for a (strong) morpheme boundary. The process in Minkova (1982: 167) is claimed to involve rhythmic weight conservation whereby the initial stressed vowel acquires an additional mora: the stressed syllable becomes heavy to preserve the perceptual isochrony of the foot. From the point of the disyllabic trochaic foot this is tantamount to compensatory lengthening: the schwa is lost and its mora is transferred to the stressed short vowel. There is no difference in the number of morae between the input and the output of the rule. The motivation (however teleological it might seem to be) behind the rule is the preservation of the overall weight of a word. Some of the claims and implications made in Minkova (1982) were revisited by Lass (1985) and Minkova (1984, 1985).

One of the drawbacks of Minkova's (1982) analysis, as pointed out by Kim (1993), is the general consensus on the dating of schwa loss. Schwa loss is traditionally taken to be a later change than MEOSL and as such is still considered to be part of Chaucer's and Gower's poetry and as such it is hardly likely to have been

<sup>3</sup> In citing OE data the following standard conventions are assumed: < $\ddot{y}$ > /y/, < $\ddot{g}$ > /j/, <þ/ð> /θ/ or /ð/ (depending on the environment), <sc> /ʃ/, < $\ddot{æ}$ > /æ(:)/ and <ēo> /eo/ (?/e:o/) as one member of the contested class of the so-called long diphthongs.

<sup>4</sup> Note that, strictly speaking, this particular rhyming pair given by Lieber (1979: 6) is incorrect and does not support her general analysis of MEOSL and, especially, the contested lowering of the high vowels. This is shown by her reluctance to give the actual rhyming sound ( $\bar{e}$  vs.  $\bar{e}$ ). The problematic bit is disentangled once the three-fold development of OE  $\ddot{y}$  is taken into account: it shows dialectal variation in OE continued into ME (\* $\ddot{y}$  remains  $\ddot{y}$  in the South-West (as represented by the so-called classical West Saxon variety of OE), in the South-East (Kentish) it surfaces as  $\ddot{e}$  and in the Midlands (Anglian) it is recorded as  $\ddot{i}$ ). Since ME *were* can only be the continuation of OE *were*, the other party of the rhyme must show the south-eastern variety of OE *y*. In all likelihood, the rhyming sound is  $\bar{e}$ . Correctly then the pair is ME *wēre* (< OE *were*) - *stēre* (Kentish *sterian*) (cf. Dobson 1968: 566f).

completely lost by the thirteenth century (for further details see Minkova 1982). If schwa then coexisted with a lengthened vowel, the analysis relying on mora-preservation and metrical compensatory lengthening is at best suspect: on the face of it, if schwa (and every pronounced vowel) is granted a mora, then the OE word *boren* (2 morae) yielded ME *bōren* (3 morae). If anything, schwa can be seen as a catalyst for MEOSL, not as a contributor to (moric) weight (the formal problems with the transference of the mora linked to schwa to the stressed vowel will not be discussed). A similar situation is encountered in the continental Germanic languages such as German and Dutch which also underwent open syllable lengthening in the thirteenth century but the schwa is still present (Prokosch 1938): e.g. Middle High German *pflēgen* > Modern German *pflēgen* with unstressed <e> representing /ə/. This is not a conclusive counter-evidence to Minkova's claim on the moric-swap and augmentation between the stem final schwa and the stressed vowel in ME because this process may be parametrically controlled, but certainly points in the direction of an alternative view: the analysis of MEOSL as 'merely' lengthening in open syllables is not exhausted by this approach (for reasons to be discussed), as opposed to MHG which is 'merely', as the term suggests, OSL, i.e. open syllable lengthening.<sup>5</sup>

There is room to consider yet another traditional explanation of MEOSL, Kim's (1993: 276) solution, essentially a reformulation of Minkova's (1982) original wording, is given in (4a) and (4b):

(4a) Kim's environment for MEOSL:

# C<sub>0</sub>V][C<sub>1</sub>ə#

(4b) Kim's final formulation of MEOSL<sup>6</sup>

V → [+lg] / C<sub>0</sub>\_\_ ][C<sub>1</sub>ə#

In other words, MEOSL is considered a case compensatory lengthening which was only activated when the vowel of disyllabic words was weakened to schwa. Crucial here is the identification of the environment: the change is not linked to the loss of schwa, but rather to the second vowel's weakening to schwa. As such, the rule circumnavigates some of the major problems of MEOSL, viz. the absence of MEOSL in disyllabic words whose second vowel is not weakened to schwa (the usually cited example is that of the OE suffix *-ig* which appears as *-y* in ME). Note that Kim's (1993) formulation in (4b) does not restrict the number of C's after the stressed vowel (and before schwa) that undergoes MEOSL, which is certainly a drawback since MEOSL applies only to words containing a single intervocalic C, or, possibly, clusters like *st/sp/sk* (data from Minkova 1982): *host, taste, yeast, feast*. Of these, *yeast* (< OE *ġest/ġist*) is the only candidate that contains an OE short vowel which could be fed into the rule (the actual ME long vowel is due to the disyllabic form this word

<sup>5</sup> For further arguments on the general dating of MEOSL, its dialectal extension and, crucially, the loss of schwa see Dobson (1962/1963: 132).

<sup>6</sup> Note that the notation [+lg] in (4b) means, in all likelihood, that the stressed vowel acquired an additional mora, i.e. it was lengthened.

had in the oblique forms), the rest is of Old French origin and may already have entered the language with a long vowel.<sup>7</sup>

## 1.2. MEOSL -a historical perspective

MEOSL is part of a chain of processes, both lengthening and shortening in their effect, that have defied a unified representation over the centuries.<sup>8</sup> These changes are usually summarised chronologically under the following four headings:

### (5) HOL (Homorganic lengthening)

OE	ME	
clīmban	clīmbe(n) <sup>9</sup>	‘climb’
wīndan	wīnde(n)	‘wind (verb)’
cīld	child	‘child’
sāng/sōng	sāng/sōng <sup>10</sup>	‘sang, pt.’
cāmb/cōmb	cōmbe/cāmb	‘comb’
fēld	fēld	‘field’

This change seems to have taken place in late OE. The input vowels were short, the output vowels long. The conditioning environment, in all traditional descriptions, is the voiced cluster after the vowel, i.e. /mb/, /nd/, /ŋg/, /rd/, /rð/ and /rz/.<sup>11</sup> Note that although this change seems natural in the sense that a vowel before a voiced cluster is longer than the corresponding vowel in a voiceless environment (cf. Kavitskaya 2002), a fact which has been noted a long time ago and has become a commonplace in many modern phonetically-oriented accounts, the phonological

<sup>7</sup> The other examples supplied by Kim (1993: 275; taken from Wright 1898; data appear as in the original source), *hasp* [ha:sp], *cast* [ka:st] and *fast* [fa:st], are outside the frame investigated here. Lengthening in monosyllables like *casp* [ka:sp] (as opposed to [kæsp]) is not a ME change at all. If it had been (assuming the word had a bisyllabic pronunciation in its oblique forms and thus a long stressed vowel) it should be [keist] after the Great Vowel Shift, which translates as /keist/ in mainstream phonological representation.

<sup>8</sup> See Ritt (1994: 2), for example, for an explanation on why the Neogrammarian attempt failed. Paradoxically, it was the very notion of ‘sound laws’ that initially sparked off the non-intuitive thinking about (diachronic) linguistic changes in the first place, coupled with the rather varied picture of OE and ME sound changes that made the unification attempt impossible: vowels undergoing the changes were both long and short, they both lengthened and shortened in environments that simply could not be subsumed under one all-encompassing rule.

<sup>9</sup> For expository reasons, OE short vowels have been marked with a breve. Traditionally, it is only the long vowels that are philologically disambiguated with a macron. In citing ME data, breves and macrons are also used for expository reasons. In neither of these periods is there a systematic differentiation of long and short vowels in the orthography.

<sup>10</sup> On the ME variation between  $\bar{a}$  (< OE *a*) and  $\hat{a}$  (< OE  $\bar{a}$ ), as well as their short counterparts *alo* in case they underwent shortening, is a complex issue which is due to dialectal variation. The present-day English picture, as on many other occasions, shows a ‘cross-contaminated’ state, to use a metaphorical expression (see Dobson 1968: §7 and §71).

<sup>11</sup> Campbell (1959) assumes some further voiced cluster in late OE. These will not be discussed here because they are of no relevance.

structure is rather marked: a long vowel is followed by a falling sonority cluster, i.e. a coda cluster which creates a closed syllable (see (6)).

(6) MEOSL (Middle English open syllable lengthening)

OE	ME	
wīcu	wēke	‘week’
wūdu	wōde	‘wood’
mēte	mēte	‘meat’
tālu	tāle	‘tale’

Some aspects of this change have already been covered in the foregoing section.

(7) SHOCC (Shortening before consonant clusters)

OE	ME	
lādan ~ lādde	lēde(n) ~ lēdde <sup>12</sup>	‘lead ~ led’
fēdan ~ fēdde	fēde(n) ~ fēdde	‘feed ~ fed’
mētan ~ mētte	mēte(n) ~ mētte	‘meet ~ met’
sōfte	sōfte	‘soft’

The examples in (7) show a common ME characteristic in the verbal paradigm: shortening of the original long vowel before a consonant cluster in infinitive ~ past tense alternations. This change is not bound to the class of verbs alone; it occurs across-the-board before all those clusters that could not tolerate a long vowel, i.e. before non-HOL clusters (as in *sōfte*). The vowel that appears in the past tense, for example, is short as a consequence of the consonant cluster that follows.<sup>13</sup>

There is yet another process that is not exclusively of ME provenance but also occurs in late OE (see Luick (1914), Lahiri & Fikkert (1999), for example), called TRISH, see (8).

(8) TRISH (Trisyllabic shortening)

OE	late OE (early ME)	
cīcen	cīcenu	‘chicken, sg. ~ pl.’
hǣring	hǣringas	‘herring, sg. ~ pl.’
sūperne	sūperne	‘southern’

<sup>12</sup> The vowel in the past tense is also recorded as ‘short a’, *lādde* (see Moore 1929, for example). This alternative vowel appears as a consequence of the time of the dialectal appearance of SHOCC: *lādde* points to an early shortening when the OE vowel was not yet raised to ME *ē*; the shortening of OE *ā* resulted in ME *a*. This has no bearing on the present discussion, however.

<sup>13</sup> There are other clusters, too, before which shortening occurred, usually containing a velar as their first member: e.g. OE *þōhte* > ME *tho(u)ghte* ‘thought’. The modern sound shows a ME diphthong which is due to the glide that appeared between the ‘short o’ (a consequence of SHOCC) and the velar fricative (conventionally spelt <gh> when citing ME data) modified by later sound changes. Other clusters before which SHOCC occurred are more difficult to assess because these clusters could support a long vowel before them in ME: e.g. OE *fēng* ‘seized’, *fēnd* ‘fiend’, *frēnd* ‘friend’, etc., of which the last two can still have a long vowel before the cluster (the cluster is coronal), as opposed to *fēng* (the cluster is non-coronal and before such clusters only a short a vowel is possible in present-day standard English). In non-standard British dialects (as well as in American English), a long vowel can appear before /ŋ/: e.g. *long* /lɔ:ŋ/. This lengthening is a post-ME development (cf. Dobson 1968: §53, especially Note 2).

This process, which is responsible for the short vowel in the third last syllable, can also be seen at work in compounds:

(9) TRISH in compounds

OE	ME	
hālidæg	hōliday/hāliday	'holiday'
bēoferlic	Bēverly	a personal name
frēondscipe	frēndshipe	'friendship'

TRISH, as we will see below, counteracted MEOSL. TRISH has been a recurrent problem in the history of English phonology and its consequences can still be observed in etymologically related pairs of words like *sane* - *sanity*, *divine* - *divinity*, etc. The issue of whether TRISH is still an active process is intimately linked to the issue of how much leeway one allows etymology to have in a synchronic analysis. There is little synchronic validity behind linking the stressed vowel of *divine* to that in *divinity*. Needless to say, an SPE-type analysis can readily come up with a rule that derives one from the other, but the validity of such rules can be questioned: in synchronic English phonology there is nothing apart from the rule itself (TRISH) that makes reference /aɪ/ and /ɪ/, for example, and not, say, /əʊ/ and /ɪ/. The alternating vowels in *flower* /aʊ/ - *florid* /ɒ/ - *floral* /ɔ:/ can also be related, but hardly in a synchronic sense of the term 'rule'. With the advent of Lexical Phonology (see Kiparsky (1985) and McMahon (2000) on the implications this has on historical phonology), TRISH essentially became a Level 1 rule which is only a step away from the lexicon. As a lexical rule TRISH can show exceptions (*obese* - *obesity*) and it is also curtailed by the Revised Alternation Condition which prohibits abstract SPE-type representations that lead to absolute neutralisation on the surface in case a word shows no alternations (this is why *nightingale* is stored with underlying /aɪ/ and cannot be fed into TRISH: TRISH cannot be activated because the word is underived). For further elaboration on how Natural Phonology can handle the TRISH issue, as well as how phonology has become lateralised and how the burden on the lexicon has increased as the means of derivation and feature-manipulation have been impoverished in the last few decades see Scheer (2004; Ch. 3).

## 2. MEOSL -the details

The following sections will give an overview of how MEOSL worked and in what way it was blocked by TRISH.

### 2.1. The various ME 'templates'<sup>14</sup>

One of the changes leading up to early ME is the levelling of unstressed vowels to a vowel spelled <e> and, by common consent, pronounced /ə/. Although the actual phonetic reality behind <e> has not been contested, its phonemic status certainly has (cf. Minkova 1982, 1985, 1991). This issue of the phonemehood of schwa, however, has no bearing on the discussion.

<sup>14</sup> The term 'template' in this section will be used to describe superficially adjacent vowels and consonants, hence the inverted commas.

The table in (10) shows the only one point in the process of MEOSL which can be taken for granted: if the early ME stressed short vowel is followed by schwa, lengthening will take place:

(10) OE stressed short vowels in the  $C_0V_1CV_2$  ( $V_2 = /ə/$ ) template

OE INPUT	ME OUTPUT	CONDITIONING	EXAMPLES
SHORT	LONG	MEOSL	tǣlu > tǣle mēte > mēat

This corresponds to the traditional formulation of MEOSL. The rest of the picture, however, is less straightforward and shows that original OE short and long vowels can end up both short and long in ME. The tables in (11) offer a summary of the changes affecting OE vowels in bisyllabic words whose first vowel is either short or long.

(11) The  $CV(V)_1CV_2C$  template

(11a) OE short vowels in ME in the  $C_0V_1CV_2C$  template

OE INPUT	ME OUTPUT	CONDITIONING?	EXAMPLES
SHORT	SHORT	MEOSL vs. TRISH	ōfen > öven sǣdol > säddle
SHORT	LONG	MEOSL vs. TRISH	ǣcer > äcre crǣdol > crädle

(11b) OE long vowels in ME  $C_0VV_1CV_2C$  template

OE INPUT	ME OUTPUT	CONDITIONING?	EXAMPLES
LONG	LONG	original vowel vs. TRISH	bēacen > bēakon ǣfenn > ēven(ing)
LONG	SHORT	original vowel vs. TRISH	bōsm > bösom dēofol > dēvil

The summary of changes in (12) below show that original OE short vowels in monosyllabic words can surface as both short and long in ME.

(12) The  $C_0VC$  template

OE INPUT	ME OUTPUT	CONDITIONING?	EXAMPLES
SHORT	SHORT	original vowel vs. MEOSL	gōd > göd þǣc > thǣch
SHORT	LONG	original vowel vs. MEOSL	hwǣl > whāle hōl > hōle



As opposed to the indeterminacy of the ME outcome for OE bisyllabic words with stressed short and long vowels, as well as OE monosyllabic words with a short stressed vowel, there is no change affecting the original OE long vowels in monosyllabic words:

(13) OE long vowels in monosyllabic words

OE INPUT	ME OUTPUT	CONDITIONING	EXAMPLES
LONG	LONG	no ME rule can apply	mǣd > mead fūl > foul

The vowel cannot be shortened because it is not followed by a shortening cluster and there are no disyllabic suffixes that could create a trisyllabic environment with the original vowel.

**2.2. Further details**

The following declensional charts show how the effects of MEOSL were counteracted by TRISH or by the original vowel. As can be seen, the MEOSL proper is only found in cases where the original short stressed vowel is followed by a schwa.

(14) unpredictable vowel length in the C<sub>0</sub>V<sub>1</sub>CV<sub>2</sub>C template  
(MEOSL vs. TRISH)  
'saddle/cradle'

	<i>Singular</i>	<i>Plural</i>
Nom.	sādel/crādel	sādeles/crādeles
Acc.	sādel/crādel	sādeles/crādeles
Gen.	sādeles/crādeles	sādeles/crādeles
Dat.	sādele/crādele	sādeles/crādeles

(15) unpredictable vowel length in the C<sub>0</sub>VV<sub>1</sub>CV<sub>2</sub>C template  
(MEOSL vs. TRISH)  
'herring/beacon'

	<i>Singular</i>	<i>Plural</i>
Nom.	hēring/bēken	hēringes/bēkenes
Acc.	hēring/ bēken	hēringes/bēkenes
Gen.	hēringes/bēkenes	hēringes/bēkenes
Dat.	hēringe/bēkene	hēringes/bēkenes

From the point of view of ME synchronic grammar, these two tables are identical. They show that a long vowel (either originally long or lengthened by MEOSL) can be counteracted by TRISH.

- (16) unpredictable vowel length in the  $C_0 \boxed{V} C$  template  
(MEOSL vs. original vowel)  
'hole/god'

	<i>Singular</i>	<i>Plural</i>
Nom.	hōl/gōd	hōles/gōdes
Acc.	hōl/gōd	hōles/gōdes
Gen.	hōles/gōdes	hōles/gōdes
Dat.	hōle/gōde	hōles/gōdes

On the face of it, no detail in the environment can explain why lengthening is preserved in one word, but lost in the other. The examples that follow in (17) show those environments in which the ME vowel length is predictable.

- (17) predictable vowel length in the  $C_0 \boxed{VV} C$  template  
'boat'

	<i>Singular</i>	<i>Plural</i>
Nom.	bōt	bōtes
Acc.	bōt	bōtes
Gen.	bōtes	bōtes
Dat.	bōte	bōtes

- (18) predictable vowel length in the  $C_0 \boxed{V_1} CV_2$  template if  $V_2 = \text{ə}$  (MEOSL proper)  
'tale'

	<i>Singular</i>	<i>Plural</i>
Nom.	tāle	tāles
Acc.	tāle	tāles
Gen.	tāles	tāles
Dat.	tāle	tāles

Strictly speaking, another table should be added. The description applies to original trisyllabic words (with a short stem vowel, as in *wdewe* 'widow, or a long one, as in *rende* 'errand'). Such stems are extremely rare in Germanic. Trisyllabic forms are due to suffixation and, if they survive into ME, they show no alternation as they satisfy TRISH.

- (19) predictable vowel length in original OE trisyllabic words  
'widow/errand'

	<i>Singular</i>	<i>Plural</i>
Nom.	wīdewe/ērende	wīdewes/ērendes
Acc.	wīdewe/ērende	wīdewes/ērendes
Gen.	wīdewes/ērendes	wīdewes/ērendes
Dat.	wīdewe/ērendes	wīdewes/ērendes

### 2.3. Can this pattern be explained?

Lahiri & Dresher (1999; 4.4.) propose analogical restructuring because there is simply no way in which a phonological rule can be salvaged from the alternating patterns presented above. They contend further that disyllables with an original long vowel surfacing with a short vowel (e.g. OE *æwpen* 'weapon') are matched in almost the same proportion by disyllables with original short vowels having long vowels (*cradol* 'cradle'). They discuss Kuryłowicz's (1945-49) first law, according to which a distinction is likely to be preserved in cases where it serves the purpose of enhancing morphological distinctions between members of related words. German offers an example for this: umlaut as a marker of plural (*Kopf* - *Köpfe* 'head sg. - pl.') is a process which was generalised to originally non-umlauting plurals (*Topf* - *Topfe* → *Töpfe* 'pot') where it now enhances the difference between singular and plural (which is now doubly marked). In ME, however, this morphological rule is not available because lengthening does not go hand in hand with number marking. The long vowel can be a property of both the singular and the plural.<sup>15</sup> Thus, a morphological rule is not available either.

It is also assumed that in ME schwas were lost in plural markers, first after vowels to avoid hiatus (*tree-(ə)s*), later in polysyllabic words (*argument(ə)s*) and finally across the board (cf. Lass 1992: 111), and thus the once transparent system was disturbed leaving the learner at a loss as to the phonological grounding of the process. In (20) Lahiri & Dresher's (1999: 698) Table 33 is reproduced.

(20) Expected vowel length alternations before and after schwa loss in plural

a) Before loss of inflected vowel

SG	PL	SG	PL	SG	PL	SG	PL
stōn	stōnes	bōdi	bodies	bēver	beveres	god	gōdes

b) After loss of inflected vowel

SG	PL	SG	PL	SG	PL	SG	PL
stōn	stōns	bōdi	bodis	bēver	bevers	god	gōds

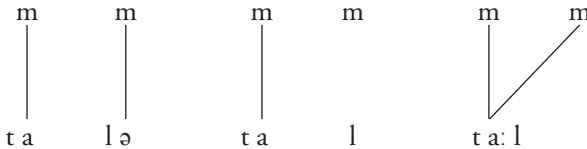
As expected original OE monosyllables with a long vowel will show no alternation. The rest of the words will, in a bidirectional fashion, once the motivation for the long vowel (as a result of MEOSL) and the short one (as a result of TRISH) was lost. 'On our account, the language learners despair of a rule, and opt instead to choose a consistent vowel quantity on a word-by-word basis' (Lahiri & Dresher 1999: 698). The modern pattern of short and long vowels vis-à-vis their OE coun-

<sup>15</sup> One must mention at this point the *staff* - *staves* pair which, for some speakers, not only shows the (now lexicalised) retention of the voiced fricative in the plural but also the length of the vowel. Note that in standard British English the length of the vowel in *staff* is a post-ME development. This would be a unique example for the retention of length as an added plural marker (cf. the case of synchronically 'exceptional' Dutch plurals, discussed in Lahiri & Dresher 1999: 681, such as *dag* - *da:gen* 'day, sg. - pl.' where both lengthening and the regular plural *-en* marker coexist). The only surviving diachronically regular pattern of this kind is disturbed in English, however: *staff* and *stave* are differentiated semantically and both have acquired the synchronically regular plurals, *staffs* and *staves*. In English, there are other, derivationally related, examples of this pattern: *grass* - *graze*, *glass* - *glaze*, etc.

terparts are reflections of patterns of quantity levelling that followed MEOSL (counteracted by TRISH: *bōdi* - *bodies*) and TRISH (in the case of long vowels: *bēver* - *beveres*). In the case of CVC stems, MEOSL could be counteracted by the original vowel, as here there is no possibility for TRISH to apply (*god* - *gōdes*).<sup>16</sup> As can be seen, in this analysis both MEOSL and TRISH were ME phonological rules obscured by the later loss of schwa, followed by analogical restructuring (lexicalisation of one of the alternating forms) in response to finding a unique underlying representation on the part of the speakers.

Lahiri & Dresher (1999) also tackle the various proposals made to account for MEOSL. They remark that Minkova's (1982) account of MEOSL in terms of compensatory lengthening (also tackled in section 1 above) begs the question of why the mora formerly associated to the lost schwa is not salvaged by re-associating it to the word final consonant. Hayes' (1989) formulation of this ME process is shown below:

(21) Hayes' representation of MEOSL (simplified)



If schwa had been re-associated to the final consonant it would have made it moraic. Lahiri & Dresher (1991) remark that a possible *\*\*tal* would qualify as a minimal word, similarly to OE *hwæl* 'whale' and *scīp* 'ship'. They also assume that English words of the  $C_0V$  size are sub-minimal, so a word like *ship* must contain a moraic consonant.

Against this interpretation, one can argue that since word-final single C's allow both a short and a long vowel before them (cf. *hot* vs. *heat/shine*), they do not make the preceding syllable heavy (i.e. they do not form a complex rhyme with the preceding vowel(s), which essentially means that there can be superficial super-heavy word-final syllables seen in *heat*, for example. Traditionally, this was analysed as word-final consonant extrametricality: *heat* is actually *hea<t>* and as such the phonotactic rules of English are blind to its existence (<t> is later integrated into a higher-level constituent, the foot, for example). Since extrametrical material is only allowed at the edges of words, this would explain why word-internal long vowel/diphthong plus coda sequences do not generally occur in English (apart from some exceptions involving coronal clusters). So, the fact that the mora was re-associated to the vowel,

<sup>16</sup> In connection with OE CVC stems (usually a-stem masculine and neuter nouns, like *god* cited above) Lahiri & Dresher (1999: 700) say that "it is no mystery that almost all CVC stems having *vocalic endings* in the singular and plural end up with long vowels, while the CVC a-stems with *no vocalic ending* in the singular show more variation due to analogy" [emphasis mine]. It is not clear at all what the authors mean by this. All CVC a-stem nouns (like *hole* and *god*) would have had to have vocalic endings in both the singular and plural (e.g. *gōdes*, *hōles*). Their Appendix 1 shows two such CVC a-stem nouns: *whale* (< *hwæl*) and *hole* (< *hol*), both of which have a long vowel. *God* is not listed (an a-stem masculine/neuter noun), but it is highly unlikely that this noun (and other CVC nouns of this class) should have had no vocalic ending(s) in the singular.

rather than to the word-final C, seems to be a matter of parameter. If it had associated to the C, one would expect a change to have taken place in English phonotactics, as a consequence of which long vowel/diphthong sequence word-finally would be banned from that point on. This, however, was not the case: during the ME period (and continuing), English adopted a large number of words which still allow superficial super-heavy rhymes word-finally (e.g. *sane*, *vain*, etc.)<sup>17</sup> in addition to those continued from OE (e.g. *boat*).

Ritt (1994: 95f) working in a version of Natural Phonology tries to give a unified picture of the various ME processes and offers an apologetic explanation for Luick's failed Neogrammarian account. He states the changes in a probabilistic formula shown in (15).

(22) ME quantity adjustment

The probability of vowel lengthening was proportional to

- a) the (degree of) stress on it
- b) its backness
- c) coda sonority

and inversely proportional to

- a) its height
- b) syllable weight
- c) the overall weight of the weak syllables in the foot.

The probability of vowel shortening is inversely proportional to the probability of lengthening. Ritt argues that this probabilistic formula accounts more appropriately for the varying degree of the implementation of the various ME changes as represented by the modern English reflexes.

Bermúdez-Otero (1998: 176f) argues in favour of compensatory lengthening in word of the *tale*-type, i.e. in the only type which unfailingly shows lengthening after the loss of schwa. To account for the variable degree of lengthening in the original CVC-type of words, he argues that monosyllables with a long vowel were more harmonic. They better satisfied a proposed set of constraint hierarchy. This strife towards harmonicity, via lexical diffusion, provided a pressure for original OE words of the CVC-type to assume a long vowel. Admittedly, this did not affect all the eligible words in the lexicon at the time: *lot*, *bath* (the length in standard British English is not a ME development) and *fish* still have a short vowel.<sup>18</sup>

Bermúdez-Otero (1998) goes on to posit a third mechanism to account for the long vowels in words like *raven*. He assumes that the second syllable varied between a syllabic and a non-syllabic pronunciation of the sonorant, i.e. /ravən/ - /ravŋ/. If, through an accident of performance, the listener perceived a stimulus /ra:vŋ/, the listener's grammar could then parse this as a well-formed representation for original

<sup>17</sup> The observation that word-final C do not count as coda consonants has received an explanation in Government Phonology (X), where a word final single C is actually the onset of the following unpronounced nucleus.

<sup>18</sup> Some words such *hen* (OE < *henn*), *cat* (< *catt*), for example, can be exempted from this process because presumably at the time of MEOSL, these words still contained a geminate and as such the stressed vowel was never in an open syllable when the process was active.

/ravən/. It seems that somehow the mora associated with the underlying non-syllabic sonorant was attracted into the stressed vowel. The problems with this is that something essentially non-phonological (performance accident) is used to explain something essentially phonological (lengthening). In addition, /ravən/ went from a two-mora stage to three-mora stage. If the same process is at work in the tale-type of words, one would expect a non-syllabic pronunciation for the sonorant in *raven* after the mora-transfer (similarly to the lost schwa in *tale*). This is not the case, however. In addition to this, this analysis goes against Bermúdez-Otero's own analysis that ME allowed mora-transfer but not mora-insertion. He does not account for the shortening of original long OE vowels either.

#### 2.4. MEOSL -a summary of what we know and what has gone unnoticed

In what follows a short summary is given on what is known for fact about MEOSL:

- (i) MEOSL operates unfailingly only in  $C_0VC\bar{a}$  words (*talū > tāl*)
- (ii) OE  $C_0VVC$  (*bāt*) words surface with a long V in ME; original trisyllabic words come down with a short vowel (*wīdewe*)
- (iii) TRISH operates in OE  $C_0VVCVC(C)VC$  words turning them into  $C_0VCVC(C)VC$  words (*hāringas > hēringes*)
- (iv) TRISH counteracts the effects of MEOSL (ME *sādəl - sādeles; hāringas > hēringes*);<sup>19</sup> in other words, the processes in (iii) and (iv) are in complementary distribution.

The problematic areas concern the following issues (cf. also Starčević 2006):

- (i) ME words in -y (OE < *iġ* or vocalised /g/ in a palatal environment) seem to inhibit MEOSL: e.g. OE *belġ* > ME *belly* 'belly', *felġ* > *felly* 'outer rim of a wheel', *byrġan* > *burye(n)* 'bury', *bisiġ* > *bisy* 'busy', *bodiġ* > *body* 'body', *myriġ* > *mirry* 'merry', etc.

In these words there is variation in ME (Wright & Wright 1928: §91, Dobson 1968: Ch. VI): both original long and short vowels appear as both short and long, respectively: e.g. OE *ānig* > ME *ēnylġnylġny* 'any', *bodig* > *bōdyl bōdy*) but in standard English there are no long vowels surviving before the OE suffix -*iġ*. One of the explanations for the prevalence of short vowels in these words is secondary stress on the suffix (Lass 1992: 73).

- (ii) There is another source of complications: the vocalisation of OE /w/ and /g/ > /u/ or /o/ (Dobson 1968: §295).<sup>20</sup> In such cases there is hardly any

<sup>19</sup> Note again that, from the point of view of ME, *hāringas* can as well be taken to come from OE *\*\*hēring* with regular lengthening in open syllables (MEOSL). It is only OE that disambiguates the situation.

<sup>20</sup> The best formulation would be to say that OE [ɣ] (an allophone of /g/) merged first with /w/ from where they share the same path of development. Already in late OE West-Saxon texts (before the vocalisation of the velar fricative) a 'parasitic' vowel (Campbell 1959: §365) /i/ <i> or /u/ <u> develops after a short syllable and before /j/ <ġ> and /w/ which later appears as <i> (or less frequently <e>) and <u> (which is also recorded as <o> or <e>), respectively: *heriġas* (< *herġas*) 'armies', *byriġ* (< *byrġ*) 'city, dat.sg.', *byriġan* (< *byrġan*) 'bury', *beaduwe* (< *beaduwe*) 'beetle, dat.sg.', *seonuwa* (< *seonwa*) 'sin-

convincing evidence for long vowels (Dobson 1968; Ch. VI): e.g. OE *ār(e)we* > *arrow*, *sceādwe* > *shād(o)we*, *bēlgan* > *bēll(o)we(n)* ‘roar’, *bēlga* > *bēllow* ‘belly’, *būrg/būrh* > *būrrōw* ‘borough’, *fēalg/fēalh* > *fāllow* ‘fallow’, *fēlga* > *fēllow* ‘outer rim of a wheel’, *fēalwe* > *fāllow* ‘red’, *tālg* > *tāllow* ‘tallow’, *wālwian* > *wāll(o)we(n)* ‘wallow’, *spēarwe* > *spārwe* ‘sparrow’. etc.

These examples are usually grouped together under the label of “other words that present some kind of special circumstance” (Lahiri & Drescher 1999: 694), such as the presence of a consonant cluster after the vowel or the presence of a trisyllabic form, which for ME *shadwe* ‘shadow’ seems impossible (\*\**shadweas* ‘pl.’); there is no evidence (e.g. metrics and scansion) to support a trisyllabic pronunciation. Secondary stress, to my knowledge, has not been claimed to account for the absence of lengthening in (ii).

These two sources are the only native sources for ME unreduced unstressed vowels. The rest of the unstressed vowels, i.e. *a*, *o*, *e* and *u*, were levelled to schwa between OE and early ME and disappeared altogether in late ME.<sup>21</sup>

- (iii) One of the other overlooked or rarely discussed issues is the shortening of original OE long vowels before ME /i/ and /u/ (from the sources in (i) and (ii) above): e.g. *ānig* > *any*, *sārig* > *sorry*, (*ge*)*rādig* > *ready*, *mādwe* > *meadow*, *hāligdæg* > *holiday*, *hālybut* (recorded in the thirteenth century) > *halibut* (also as *holibut*) ‘flatfish’, *hāligdom* > *halidom* ‘holy relics’, *hālig* > *holly* ‘holy, dial’. These words also show a great deal of variation between short and long vowels in ME.

The problematic areas listed in (i)–(iii) will be tackled in 3.

- (iv) HOL is traditionally claimed to be counteracted by SHOCC: cf. *child* vs. *children/childer* (dial.), *wild* vs. *wilderness/bewilder*, *old* vs. *alderman* ‘high ranking council official’ (<a>/ɔ:/ is a later development). In view of a ‘natural’ phonetic account of lengthening in closed syllables before a voiced cluster, it is difficult to understand why another voiced consonant (a sonorant, which is either syllabic or not, cf. Dobson 1968: §319–§332) should shorten the very same vowel. If anything, it should support the length of the affected vowel.

Closely connected to this is the absence of lengthening before OE sonorant geminates: e.g. OE *willa*, *sēllan*, *tēllan*, *w(e)āll*, *sūnne* > ME *sēlle(n)*, *tēlle(n)*, *wāll*, *sūnne* ‘will, sell, tell, wall, sun’. This also seems to run counter to the

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*ews*, *swaluwe* (< *sw(e)alwe*) ‘swallow’. Campbell says that /ij/ can be monophthongised to *i* (sic!): *by-riweard* (< *burgweard*) ‘townguard’, *fylían* (< *fyligán* < *fylgán* < \**fylgjan*) ‘follow’. It is not clear whether he means /i/ or /i:/, but the ME developments (the stability of this *i* to reduce to schwa, cf. *belly* < *beliġ* < *belġ*) suggest a long vowel. If this monophthongisation already took place in OE, then the long vowel may also have joined the short vowels in the reduction process between OE and ME, the only difference being that here reduction meant loss of length. If so, this vowel is short in ME. Campbell is silent on whether the same happened to /uw/ > /u:/. Yet, the ME developments show that this vowel also failed to become a schwa. Also, the <w> that appears in spelling may simply show a hiatus filler: /folu(:)wən/.

<sup>21</sup> Apart from, for example, *borough* /bʌrə/, which is standard pronunciation now (but the rest of the words in this group can also end in schwa in certain dialects or sociolects, especially *fellow*). Even granting this, these schwas do not originate in ME schwas.

expectations that a short vowel was perceived longer (and later lexicalised as such) in a (fully) voiced environment.<sup>22</sup>

It has also gone unnoticed that OE monomorphemic words whose vowels would qualify as input to HOL have not undergone lengthening and there is almost no variation recorded in the sixteenth to the eighteenth century (cf. Dobson 1968). Some modern examples follow: *behind* vs. *hinder*, *climb* vs. *clämber*, *bound* vs. *asunder*, *wild* vs. *bewilder*, etc.

- (v) There is another source of indeterminacy in the outcome of the OE short vowel: cf. *saddle* (< *sadol*) vs. *cradle* (< *cradol*). In Bermúdez-Otero's (1998) account, as pointed out earlier, the sonorant of the coda (cf. /ravən/-/ravŋ/) contributed to lengthening. Ritt (1994), see above, similarly, attributes the probability of lengthening to coda sonority. Jones (1989: 118) comes to the opposite conclusion: when the coda of the second syllable is a sonorant, lengthening is blocked. Whatever the exact phonological conditioning behind this change, both approaches have to face the fact that levelling occurs in both directions. The descendants of disyllabic nouns with a short stressed vowel and a sonorant coda are both long and short in modern English (cf. Lahiri & Drescher 1999: 691). It seems as if the theories on the relevance of the coda consonant describe two disparate events. The phonological reason (as opposed to various dispersion theories of individual lexical items) for the varied modern English picture probably lies in a better understanding of how MEOSL was implemented in the various dialects of English in ME.

These problems will not be tackled in this paper.

### 3. Was there a ME template in a phonological sense?

In this section some evidence will be given in support of a ME template. This template will be a CVCV template. Now the word template is not understood as a description for surface-adjacent vowels and consonants, but as a CVCV template in the strict sense of the term.

#### 3.1. The background in a nutshell

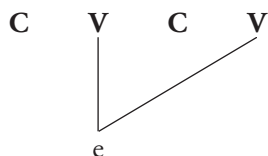
The following sections will investigate whether there existed a ME template responsible for some of the changes described in the foregoing section. The analysis will be couched in terms of CVCV phonology which aims at being maximally lateral, local, non-derivational and doing away with disjunctive contexts in favour of

<sup>22</sup> One could argue that degemination postdates MEOSL, i.e. the short vowel was in a closed syllable when the rule operated. This would bring it in line with OE words containing a non-sonorant geminate (e.g. *bedd*; ME *bed* - *beddes*), as well as the class of newly created non-sonorant (monomorphemic) geminates (OE *mētan* - *mētte* > *mēte(n)* - *mētte* 'meet - met'). As can be seen, original obstruent geminates fell together with the new geminates. The absence of lengthening can be explained by closed syllable shortening. Yet, the question remains: why were sonorant geminates as opposed to sonorant plus voiced consonant clusters (subject to HOL) less sonorous, not allowing for phonetic (and phonological) reinterpretation of the short vowel as long.

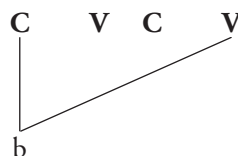


uniform phonological explanations behind apparently disparate contexts (such as 'l-vocalisation happens word-finally and before a consonant'). This means in essence that complex arboreal structures characteristic of post-SPE decades revolving around the rediscovery of the syllable as a unit of phonological analysis have been completely done away with. CVCV phonology is an offspring of Government Phonology (Kaye et al. 1985, 1990) but is even more radical than its predecessor and brings some of its conclusions to a maximal level of generality. Every string of adjacent consonants (C's) and vowels (V's) is only virtual (see e.g. Lowenstamm 1996, 1999, Ségéral & Scheer 1999, and, for a full exposition of these ideas, Scheer 2004; as well as Cyran 2006 for a critique of Scheer 2004). There is the skeleton that is built of C's and V's. Below the skeleton is the melody that is responsible for such contrasts as /a/ vs. /o/, for example (see Harris & Lindsey (1995) for an exposition). Above the skeleton there is government and licensing, the only two 'forces' that CVCV phonology admits into its toolbox. It is also assumed that these two forces always operate from right to left. Metaphorically speaking, licensing is a 'good' force (as suggested by its name), it supports C's in their melodic integrity (a C which is targeted by licensing is backed up by the following V and is, both synchronically and diachronically, more resistant to melodic decomposition; C's are strong in word-initial position and after a consonant).<sup>23</sup> Government, on the other hand, is a 'bad' force which destroys melodic material and leads to lenition.<sup>24</sup> Of the two phonological primes, it is pronounced V's that (generally speaking) can always license and govern; C's are less endowed: they cannot license a V, nor govern it and C-to-C government and licensing is a disputed issue (cf. Sheer 2004: 176 for a more elaborate discussion). Consider the following representations of long V's/diphthongs and geminate C's in (16).

(23) long vowel/diphthong<sup>25</sup>



geminate



<sup>23</sup> This may sound like a typical disjunctive context known from SPE times, but this is merely a description with a unique explanation behind it: licensing, which can be observed word-initially and after a consonant (also known as the Coda Mirror in CVCV phonology).

<sup>24</sup> This division of labour does not mean that a C hit by government will necessarily be less complex at any given stage of a language than a C targeted by licensing. A C hit by government can be as complex as one hit by licensing and can survive as such for an indeterminate amount of time (from a diachronic perspective). The opposition between licensing and government means that one can predict what will happen to a C and where (the when part is left out of the equation, of course, because the actuation of a process is beyond phonology as yet): word-initially and after a C, if followed by a V, C's are strong and as such one can predict that these C's will be relatively stronger than their intervocalic, pre-consonantal or word-final peers when a change sets in. The difference between the two sources allows one to make predictions.

<sup>25</sup> The difference between the two is just a matter of how many melodic 'bundles' there are: one (associated to two V's) in the case of a long V and two associated to two V's in the case of a diphthong. A similar explanation pertains to full (e.g. bb/b:) and partial geminates (e.g. mb): again, two C positions are occupied by either one or two melodic 'bundles', respectively.

### 3.2. V-to-V licensing and government

Licensing was described above as a force which supports melodic material (or, at least, makes it less prone to reduction/simplification). Government, on the other hand, was a destructive force which is responsible for melodic decomposition. If government from a V hits another V, this V is expected to undergo lenition, which in the case of a V means that it will alternate with zero. This is called syncope or vowel-zero alternation. This means that a V will disappear if hit by government, if it is followed by another vowel. In case it is not followed by a V, it will surface again, i.e. there will be no syncope. Consider the examples shown in (24) where  $\emptyset$  shows an unpronounced/syncoated or zero vowel.

(24) V-to-V government (vowel-zero alternation/syncope)

DESCRIPTION	OPEN SYLLABLE	CLOSED SYLLABLE
PHENOMENON	$\emptyset$	V
examples/languages		
English	<i>fest</i> $\emptyset$ <i>ring</i> /festriŋ/	<i>fester</i> /festə/
Hungarian	<i>kar</i> $\emptyset$ <i>mot</i> ‘claw’	<i>karom</i> ‘id. acc.’
Croatian	<i>fest</i> $\emptyset$ <i>ma</i> ‘fair ground’	<i>sajam</i> ‘id. gen.’

As opposed to this, V-to-V licensing is the exact opposite of the pattern in (24). Here, a long V is found in an open syllable, i.e. when it is supported by the following vowel (recall: all forces apply from right to left), and a short one in a closed syllable (i.e. when no support is possible). A selection of examples is taken from Scheer (2004: 180), shown in (25).

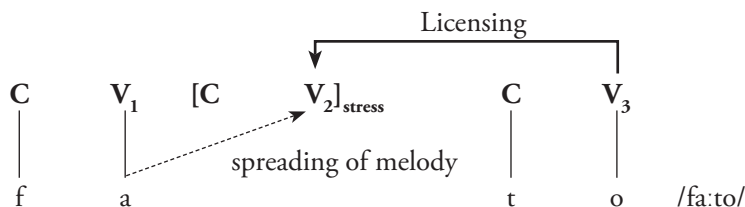
(25) V-to-V licensing

DESCRIPTION	OPEN SYLLABLE	CLOSED SYLLABLE
PHENOMENON	VV	V
examples/languages		
Czech	<i>žába</i> /ʒa:ba/ ‘frog’	<i>žáb</i> /ʒab/ ‘id. gen. pl.’
Icelandic	<i>lúða</i> /lu:ða/ ‘halibut’	<i>harka</i> /harka/ ‘severity’
Italian	<i>fato</i> /fa:to/ ‘fait’	<i>parco</i> /parko/ ‘park’
Southern French	<i>fêter</i> /fete/ (+ATR) ‘to celebrate’	<i>fête</i> /fɛt/ (-ATR) ‘feast’

Scheer (2004) claims that open syllable lengthening and tonic lengthening is the same process because there appears to be no examples for open syllable lengthening

unless the vowel is stressed. It is also claimed that open syllable lengthening involves the addition of an empty CV unit to the stressed vowel in case this unit is licensed by the following vowel. The V part of this additional CV unit will be the target of spreading of melody from the preceding V: in other words, lengthening can only be found in open syllables if the melody-to-spread linked to V is stressed.<sup>26</sup> Consider the representation in (26).

(26) Tonic/Open syllable lengthening in Italian



If Italian allowed lexical words to end in consonants, the expectations are that this vowel would surface as short, i.e. as /fat/.<sup>27</sup> This expectation is borne out in Czech: *žába* vs. *žab*. As can be seen, V-to-V licensing is CVCV phonology’s answer to open/tonic syllable lengthening: V3 licenses (supports) the introduction of a CV unit into the structure onto which the original melody linked to V1 spreads creating a long V (superficially a V1V2 structure).

**3.3. Has there ever been a CVCV template in English?**

The discussion of this topic would present too much of a diversion at this point because ME processes would have to be evaluated against OE and Germanic data (see e.g. McCully (1996) for a discussion of poetic templates).

There is, however, indication that OE shows a number of regularities that are sensitive to the so-called Germanic foot, proposed by Dresher & Lahiri (1991). The Germanic foot is an attempt to demonstrate that a heavy syllable (H) is phonotactically identical to a sequence of a light syllable (L) followed by either a light or a heavy syllable. This can be seen in (27)

(27) The Germanic foot

$$H = L X, \text{ where } X \text{ is either } H \text{ or } L$$

<sup>26</sup> It is claimed (Scheer 2004: 176) that “it would be bewildering if closed syllable lengthening were found in natural language”. It seems then that HOL in ME is a process unexpected. As we have seen, HOL seems to be blocked exactly in those circumstances in which some clever trick (typically a homorganic voiced cluster counted as a single C, as in Ritt 1994) could produce an open syllable: cf. *behind* vs. *binder*. This aspect of the process will not be discussed here.

<sup>27</sup> The issue is complicated by alternating and non-alternating long vowels, which coexist in Czech, for example: *žába* - *žab* vs. *flámové* ‘Flemish person, nom.pl.’ - *flám* ‘id. nom.sg.’, respectively. Data like this suggests a different representation for these two phonetically identical vowels. Scheer suggests a difference between head-final (*flám*) and head-initial long vowels (*žába*). Note that this does not help in deciding what sort of a long vowel Italian /a:/ is (it cannot be tested).

The proof for this equation comes from a number of sources in OE:

- (i) *High Vowel Deletion*: this process deletes pre-OE \**i* and \**u* if followed by either a stressed H syllable or a L syllable and another syllable. They remained after a stressed L syllable or a stressed H syllable followed by a L syllable: e.g. *word* (< \**wordu* H) ‘words’ vs. *scipu* (< \**scipu* L) ‘ships’, *fēt* (< \**fēti* H) vs. *hnyte* (< \**hnyti* L, with <e> representing pre-OE \**i* not lost to this process), *we(o)rod* (< \**weorodu* L L) ‘troops’, *færeld* (< \**færeldu* L H) ‘journeys’, *hēafodu* (< \**hēafodu* H L) ‘heads’. As can be seen, word (H) patterns together *we(o)rod* (L X),<sup>28</sup> cf. Campbell 1959: §345-§354 for further details.<sup>29</sup> So, phonotactically H is identical to L X.
- (ii) *Main stress assignment*: *hēafod*, *wéorod*, etc. (see Suphi 1988 and Fran 1994 for a different view).
- (iii) *Resolution* in poetic meter (Sievers 1893, Kuryłowicz 1948/1949, etc.), discussed in Kaluza 1896, Lass 1983, Drescher & Lahiri 1991, Fulk 2002, Cable 2003, etc.

Lahiri & Drescher (1991: 261) claim that “The correspondence between H and L X is evident in the rule of Resolution [...] which plays a role in Old English verse: in a metrical pattern, a light stressed syllable followed by any unstressed syllable is considered equivalent to a single heavy stressed syllable”. Their examples, taken from *Beowulf*, are *sel* (H) = *hete* (L L) = *sigor/cyning* (L H).

Fulk (2002) comes up with a generalisation: (i) under primary stress resolution is obligatory, (ii) under secondary stress, it is optional, but if it occurs, it is only possible if the endings involved after the stressed vowels are etymologically short and (iii) if no stress, there is no resolution. The remark on etymologically short vs. long endings is in order at this point: etymologically short endings come historically from Germanic short vowels or long vowels with the so-called normal tone, whereas etymologically long vowels come from the so-called trimoraic vowels of Germanic, those with abnormal intonation or Schleifton (see Campbell 1959: Ch. VII for further clarification).<sup>30</sup>

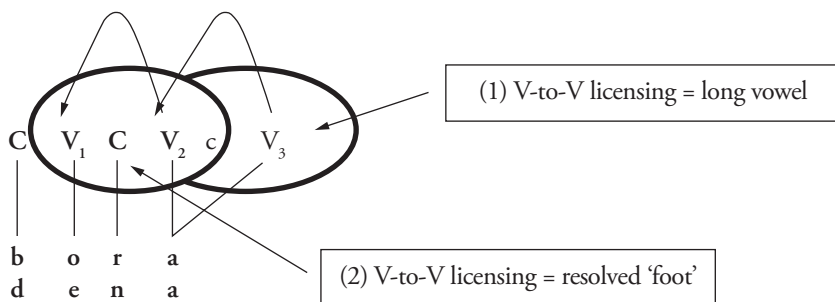
<sup>28</sup> The stressed syllable of *weorod* does not contain a diphthong, as suggested by the spelling <eo>. These controversial sounds are the so-called short-diphthongs that were L, hence the notation *we(o)rod* at this point.

<sup>29</sup> Note that *hēafodu* (up to the plural suffix *-u*) is H L and as such preserves the \**u* (H L L). Similar forms are *nitenu* ‘creatures’, *mægdenu* ‘girls’. A monomorphemic word having the H H pattern followed by \**u* where the second H is supplied by a long V or diphthong is a possibility to consider. Such examples are impossible to find as unstressed long vowels and diphthongs underwent shortening in pre-OE times. The expectations are that \**i*/\**u* would have been lost in such cases as they are preceded by a H syllable. There are, however, examples where the second H syllable is supplied by a consonant cluster, e.g. *isern* ‘iron’. Again, the loss of \**u* is expected.

<sup>30</sup> Some examples follow: short endings (*ō*-stem nom. sg. fem. OE *-u* < Germanic \**-ō*, *i*-stem nom. sing. masc. OE *-e* < \**-i* < Germanic \**-iz*) vs. long endings (*a*-stem gen. pl. OE *-a* < Germanic \**-ōm*; *ō*-stem nom. pl. OE *-a* < Germanic \**-ōm*). Probably, abnormal tone was reinterpreted as length, so vowels with abnormal tone counted as long; by this time, however, the original long vowels (with normal intonation) fell together with the short ones. The shortening of vowels with abnormal intonation is later (pre-OE) than the West-Germanic shortening of long vowels with normal intonation (cf. Campbell 1959: §331 and §355). Note that long vowels with abnormal intonation are only found in suffixes, never word-internally. As observed in the previous footnote, this is why in OE it is impossible to find long unstressed vowels/diphthongs supplying the second H in the Germanic foot.

This distinction seems to have been preserved until very early OE and was later maintained in poetic tradition although by the earliest written documents its phonological basis was probably lost altogether (cf. Hogg 1992: 232). As a result of this, in OE poetry there is no resolution in words like *bora* (OE *-a < \*-ô*) ‘ruler’ and *Dena* (OE *-a < \*-ô̄m*) ‘of the Danes’. The reason for this is the (original) length of the second vowel. More precisely then, *borā* and *Denā*. The question arises why resolution (H = L X) is banned if the vowel to be resolved is long. CVCV phonology’s answer that I propose reads as follows: no sharing of licensing between vowels (see 28)).<sup>31</sup>

(28) ‘No sharing of licensing’



Fulk (2002: 333), discussing evidence from OE poetry, remarks that unresolved sequences like *Dena lēodum* ‘to the Danish people’ in either half of an OE line are vanishingly rare and can be treated as textual corruption. This is not surprising in view of the constraint proposed above. Resolution is in fact impossible if there is a vowel ( $V_2$  above) that would have to straddle two domains (a resolved foot and a long vowel). This lends some evidence in favour of regarding some phenomena of OE as templatic.<sup>32</sup> For lack of space, other possible evidence in favour of a template will not be considered here. Yet, this argumentation will hopefully put in perspective the ME changes.

#### 4. MEOSL as template superimposition

The following sections will try to account for MEOSL in terms of a CVCV template inherited from OE.

##### 4.1. What we know and how we can account for it

It would be impossible to assess the changes affecting the various dialects of English, but what we do know about standard British English is that there are no

<sup>31</sup> A similar constraint is proposed by Szigetvári (1999). This one, however, bans a long vowel before a coda-onset cluster, i.e. it explains a common phenomenon in language, closed syllable shortening.

<sup>32</sup> Fulk also discusses resolution in *Poema Morale*, a very early ME piece of poetry, which shows that two L syllables were resolved and were equivalent to a H syllable in the same position. The possibility of resolution is lost altogether in later ME poetry.

long vowels before *-ow* in words of OE origin (cf. *wallow*, *fallow*, *borough*, etc.)<sup>33</sup> and there are also no long vowels in monomorphemic words before *-y* (*belly*, *felly*, *body*). Dobson (1968) does record ME variation before *-y* continued into the sixteenth century, but variation before *-ow* is almost non-existent. This fact could be explained by the fact that *-ow* was never regarded as a suffix (which is certainly true from the diachronic perspective) and words containing it were analysed (or rather, were continued to be analysed) as morphologically simplex since there was no ground for morphological reanalysis. As opposed to this, words having the suffix *-y* (< *-iġ*) in which case, regardless of the fact whether the word was originally monomorphemic like *body* or morphologically complex like *holy*, a greater degree of variation is to be expected. Even granting this source of variation, standard British English shows no long vowels before monomorphemic words ending in *-y*.

If one assumes that a monomorphemic word showed no lengthening in open syllables, this can be an indication of a ME template that looked for melodically specified vowels to ‘hook onto’. Melodically specified here means a vowel other than schwa (which stands for a melodically empty V which is not governed and thus has to be pronounced). This is disputed by Scheer (2004) but is not directly relevant for this analysis.

If two melodically specified V’s were found, the CVCV template was superimposed and there was no lengthening. The only two melodically specified V’s word-finally in disyllabic words were /i/ and /u/. The templatic account is shown in (22).

(29) ME /beli/ and /falu/ < *bel(i)ġ* and *fealg*

C	V <sub>1</sub>	C	V <sub>2</sub>
b	e	l	i
f	a	l	u
C	V <sub>1</sub>	C	V <sub>2</sub>

This would explain one of the often-cited exceptions to MEOSL.

In case, the word-final vowel in disyllables was a schwa, the template looked for the nearest melodically specified V, which could only be found word-initially, as the continuation of the original OE stressed short vowel. In this case, there was an additional CV to be occupied (shown as  $c_2V_2$  in (30))<sup>34</sup> and the melody of the initial vowel was free to spread onto it creating thus a long vowel. Note that this is only pos-

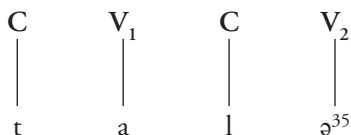
<sup>33</sup> A word like *halo* (forming a ‘minimal pair’ with *hallow*) was first recorded in the sixteenth century (ODEE). It probably entered the language with a long stressed vowel.

<sup>34</sup> In VC phonology (Szigetvári 1999) ‘c’ represents an empty, i.e. unpronounced consonant, as this one which is found inside a long vowel.

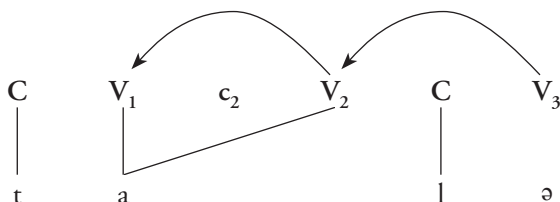
sible if there is a pronounced vowel (a schwa in our case) after the template that licenses the template and, indirectly, the spreading of melody. This is reminiscent of Italian Tonic lengthening. The ME vowel was a head-initial vowel under this analysis.

(30) MEOSL ‘proper’

Before the application of the template



After the application of the template



This case of MEOSL was referred to above as MEOSL ‘proper’, i.e. lengthening that applies unfailingly.

This process explains why there is no templatic superimposition in monosyllables. There is no schwa to license the template. Of course, one of the problematic areas of MEOSL is presented by OE monosyllabic words that end up with a long vowel in ME (e.g. OE *hōl* > ME *hōlā*). This class of words was analysed by Lahiri & Dresler (1999) as analogical levelling from the oblique forms (cf. *hōl* ‘nom. sing’ - *hōlās* ‘nom. pl.’). Under the analysis suggested here, and allowing phonology to explain phonological effects, one has to admit that the OE word *hōl* was lexicalised as *hōlā* before MEOSL became active. After this moment, *hōlā* is just like *tālā* (< *tālu*). Monosyllables, under this account, are just apparently problematic.

4.2. Shortening in *sorry*-type words

The problems concerning words like *sorry* (< *sāriġ*) and *meadow* (< *mādwē*) will not be exhaustively described here because it seems to be one of those problematic areas that are intertwined with the notion of TRISH, both in native and French loan words.

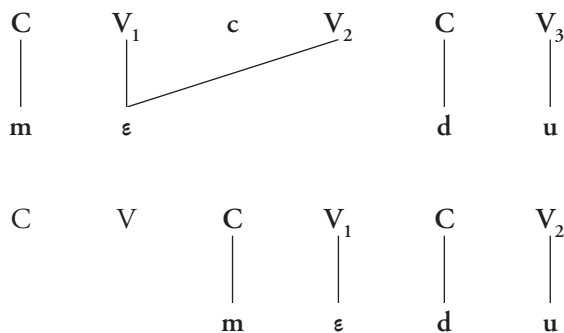
In the previous section the direction of template superimposition was not mentioned, but it was assumed that it proceeded from the left edge of the word. This would be in line with the Germanic pattern of stress placement which is fixed on the stem of the word in case of non-compound words. Whether the suggested CVCV template and stress placement are coextensive still awaits further research, but there is indication that OE secondary stress depended on the vowel that followed the ac-

<sup>35</sup> The absence of an association line above schwa is not accidental: schwas can be considered to be the realisations of V’s having no melodically specified melody, as already discussed.

tual secondary-stressed vowel (for details see Campbell 1959: §87-§92): it seems that secondary stress only appeared on vowels followed by a vowel. This suggests that primary and secondary stress were calculated differently: primary stress was fixed (and dependent on morpho-syntactic information, such as noun vs. verb), whereas secondary stress was calculated from the end of the word if the right environment was met (i.e. if there was a following vowel after an eligible unstressed one). The calculation of stress in English in the ME period was disturbed by French loan words whose stress pattern in some cases was radically different from the Germanic pattern: generally, it was more back-stressed than fore-stressed (the usual pattern in OE). Some aspects of TRISH are discussed in Lahiri & Fikkert 1999. Romance loans had a great impact on the pattern of stress placement and this is mirrored in theory by the fact that stress is calculated from the end, i.e. the right edge of the word (cf. Hogg & McCully 1987 and the references cited therein) involving extrametricality that works differently for nouns as it does for verbs. Actually, Germanic words hardly ever feature prominently in such analyses because they are simply too short to be subjected to various tests.

One impact that Romance loans might have exercised on ME was the change in which the inherited ME template was superimposed. This could explain the shortening in monomorphemic words like *sorry* and *meadow* (shown below). This issue cannot be taken up here but some discussion, albeit not in terms of a template, is offered in Kim (2002) who takes up the problem of the simultaneous application of the Germanic and the Norman French stress rules to native and borrowed words. It is argued, in essence, that there was a tug of war between the old Germanic and the new Romance accentuation pattern with the observable drive to place primary stress on the first syllable. It is conjectured here that this may also have resulted in changes in the native vocabulary (contra Kim who claims that native words can only be subject to the Germanic stress rule and as such are always stem-stressed or, less typically, prefix-stressed). The relationship between the two stress rules and the supposed templatic superimposition cannot be satisfactorily answered here.

(31) Shortening in *sorry* and *meadow*



As can be seen, the template is applied from the right edge and as a result the vowel is shortened. This also involves re-lexicalisation, because the initial CV slot



is now empty and gets deleted. This is a diachronic process which is reflected in the synchronic reality of the language. This analysis leaves many questions open, e.g. (i) how exactly is the material found under the first C moved to the originally empty c, (ii) was this right-to-left template superimposition a feature of some dialects only, (iii) can TRISH in ME be re-analysed along this templatic line (note that *sanity* was originally stressed on its last syllable when adopted into ME, as it still is in French, and was preceded by two syllables, of which the stressed one comes down as short in modern English). Some doubts about TRISH are tackled in Starčević (2006).

#### 4.3. The *cradle/saddle- beacon/herring* problem

This is also one of the problematic areas that can only be mentioned in passing here. If one believes that phonology still deals with phonological matters at the stage when a process is active (this leaves disturbing background noises such as analogy and the like out of the picture), then one has to assume that modern English shows a 'cross-contaminated' state which translates into how and when, if at all, the various ME dialects implemented the suggested CVCV template. This is probably one of the aspects that no account can ever hope to handle satisfactorily. The predictions, however, can still be salvaged and this is what phonology is about. Note that OE final vowels were all merged into schwa. If we accept that the template looked for melodically specified V's, then *saddle* (< *sadol*) can come from a dialect which had not levelled its unstressed vowels into schwa when the template was superimposed. If such a dialect existed, it treated *belly* and *sadol* alike. This explains the short vowel in *saddle*. *Cradle* (< *cradol*), on the other hand, comes from a dialect which levelled its OE unstressed vowels into schwa before the template was superimposed. The issue is also connected to syllabic consonant formation, a process which had already begun in OE, was continued into ME and later stages. The issue is described at length in Dobson (1968: 887-915). A similar assumption can be made about *beacon/herring*. The details of this analysis are still in its infancy.

#### 4.4. Conclusion: what is MEOSL then?

This discussion has hopefully shed some new light on MEOSL: it may be a ME process but it is far from being purely an instance of OSL. The data simply speak against it. It has been argued that MEOSL is actually a templatic change that had its roots in OE and was continued into ME. In the absence of melodically specified vowels (*belly/shadow*), the CVCV template looked for the nearest vowel which was lengthened as a result of melodic spreading to the empty CV slot. This spreading was only possible if the template was licensed by the following vowel (schwa in our case). The template explains why lengthening never fails if the original vowel is followed by schwa and also why there are no long vowels in standard English before *-ow* and *-y*. The rest of the data still defy a unified analysis, but some signposts for further research have been set.

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