

## **Main Stress Left in Early Middle English\***

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### **1. *Pertinacity in grammar***

Lahiri (2002) has called attention to a characteristic of grammars called *pertinacity*. A rule or pattern may persist over time, though its realization may change. An example is the persistence of a particular metrical pattern in a language, though it may apply to new forms and no longer apply to forms that it used to apply to (e.g., the Germanic Foot, Lahiri & Dresher 1999). This type of pertinacity can be summed up as: same pattern, different output realization.

We will also look at an example of the converse kind of pertinacity. It concerns persistence of output forms despite changes in the grammar. This type of change can occur under various conditions. Such change always involves a reanalysis of the output form, provoked by changes elsewhere in the system. This type of pertinacity can be summed up as: different pattern, same output realization.

Since learners acquire their grammars guided by the output forms they are exposed to, we do not expect these forms – especially those that make up the ‘core’ or ‘primary’ data – to change in the course of acquisition. Reanalysis

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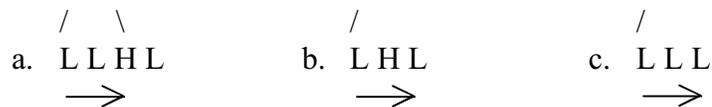
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of grammar that does not involve an immediate change in output forms is thus a significant type of language change.

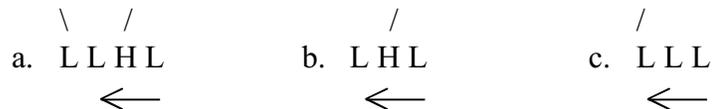
## 2. *Change in the English stress system*

Our example is the change from the Old English Germanic stress system to the Modern English Latinate stress system. This represents a radical change:

- (1) Germanic: Stress on the stem-initial syllable, regardless of quantity, building secondary stress from left to right.



- (2) Latin: Stress on the penult if heavy, otherwise on the antepenult, secondary stresses from right to left.



Did a new group of people take up English and bring with them their native Latinate prosody? We know this is not what happened. But even if we did not know this directly, we would have been tipped off by a peculiar fact. Through the changes in the grammar of stress, all native Old English words retained their output stress contours: *wáter*, *hópefulness*, *begín* all retain their original stress contours, though the metrical structures that underlie them have changed. This fact suggests the change was carried out by native speakers who maintained continuity with the stress patterns of previous generations.

So what brought about the change? Contrary to Halle & Keyser (1971), who place the origins of the change in the time of Chaucer, we date the

important innovations to a later time, due to the influence of Latin borrowings. If this is correct, we must answer another question: How are borrowings able to effect such a big change in the system? Our hypothesis is that borrowings can be decisive when the core native vocabulary does not decide between grammars. The pertinacity of surface stress contours of native forms suggests the change was carried out by native speakers, influenced by new vocabulary that resolved ambiguities in the grammar.

### 3. *An early generative account: Halle & Keyser (1971)*

Halle & Keyser (1971) propose that the Romance stress rule was added to English in the time of Chaucer. This rule originally competed against the dominant Old English stress rule, and was gradually extended over the subsequent centuries. According to Halle & Keyser, the Romance stress rule subsumed two different patterns commonly attributed to separate stress rules:

- A. the French pattern responsible for Chaucer's final stress in words like *honóur* and *vertú*.
- B. the Latin pattern – stress on the penultimate syllable iff heavy, otherwise on the antepenult – that came to be dominant in later English.

The great advantage of this scenario, with respect to our topic, is that it accounts for the origin of the Latin stress pattern in English. The relatively few early borrowings from Latin are now reinforced by the more numerous words with the French stress pattern (since the French and Latin stress rules are united in this analysis). The later flood of Latin borrowings could thus simply provide further evidence for a pattern that had already gained a foothold in English. Unfortunately, this account appears to be wrong in a number of respects.

The first problem is that, under any analysis, the French and Latin stress rules are different.

- (3) The French stress rule
  - a. Stress the final vowel unless it is schwa: *abbót, chanóun, degrée, honóur, vertu*;
  - b. Otherwise, stress the penultimate vowel: *divíne, Egípte, exiled, govérne, service*.
- (4) The Latin stress rule
  - a. Stress a tense final vowel: *chanóun, degrée, honóur, vertu*;
  - b. Otherwise, stress the penultimate syllable iff it is heavy (either having a tense vowel or closed by a consonant): *Caríbdís, divíne, govérne, Neptúnus*;
  - c. Otherwise, stress the antepenult: *Cappáneus, Týdeus, Zépherus*.

The stress rules differ in two cases. When the final vowel is lax but not schwa, the French rule gives final stress (5), and the Latin rule would give nonfinal stress (6):

- (5) French: *abbót, Jhesús, Judíth, Oréb, tempést*
- (6) Latin: *ábbot, Jhésus, Júdith, Óreb, témpesť*

In the above examples alternants with initial stress would be generated both by the Germanic and the Latin stress rules. However, under the Latin stress rule there would be no source for the forms in (5). Thus, Halle & Keyser (1971) must mark these as exceptions to the unified Romance stress rule.

A second discrepancy occurs when a word has more than two syllables, where the final vowel is schwa and the penult is in a light syllable. In such cases, the French rule gives penultimate stress, but the Latin rule gives antepenultimate stress. According to Halle & Keyser (1971), Old French words all

had heavy penults, thus avoiding a conflict in words borrowed from that source. But many words borrowed into English from Latin had light penults and followed the Latin, not the French rule, undermining a unified approach to Old French and Latin stress patterns.

The second problem with the Halle-Keyser account is that the French stress pattern had no lasting effect on English prosody. It should be noted that words with French stress in Chaucer could in general also be stressed according to the native English pattern, as required by the meter. Hence we find many doublets:

- (7) *cítée* ~ *cítee*; *comfórt* ~ *cómfort*; *divérs* ~ *díverse*; *geáunt* ~ *géant*; *Plató* ~ *Pláto*; *présént* ~ *présent*.

With very few exceptions, the Present Day English reflexes of Romance words with French stress in Chaucer have initial stress consistent with Germanic stressing:

- (8) *ábbot*, *bárren*, *cítý*, *cómfort*, *díscord*, *Égypt*, *fórtune*, *gíant*, *góvern*, *hónour*, *Jésus*, *Júdíth*, *mércy*, *Pláto*, *présent*, *sérvant*, *sólemn*, *témpest*, *tórmént* (noun), *týrant*, *vírtue*.

In addition, we find PDE *ascéndant* (cf. *ascénd*, Chaucer *ascendént*), *cánon* (Chaucer *chanóun*), and *purvéyance* (cf. *purvéy*, Chaucer *purveyáunce*; the more usual Middle English form was *púrvey-*). There are only a few exceptions to the above generalization: *degréé*, *divíne*, and *rewárd*, among others, have final stress.

More generally, bisyllabic Romance loans borrowed before the fifteenth century have initial stress in Present Day English (see also Lahiri & Fikkert 1999 and Svensson & Hering 2003):

- (9) Stem vowel is short in Present Day English  
*talent* (893), *baron* (1200), *senate* (1205), *jealous* (1250), *palace* (1290), *channel* (1300), *gallon* (1300), *panel* (1300), *coral* (1305), *profit* (1325), *metal* (1340), *satin* (1366), *moral* (1380), *volume* (1380), *second* (1391), *Latin* (1391).
- (10) Stem vowel is long in Present Day English  
*basin* (1220), *moment* (1240), *vacant* (1290), *odour* (1300), *process* (1330), *paper* (1374), *raisin* (1382), *patent* (1387), *famous* (1400).

By contrast, bisyllabic Romance loans with final stress in Present Day English tend to have been borrowed much later:

- (11) *cement* (1300) (but ME *síment* had initial stress until the 19th c.), *canal* (1449), *bourgeois* (1564), *gazelle* (1582/1700), *moustache* (1585), *gazette* (1605), *hotel* (1644), *champagne* (1664), *ballet* (1667), *salon* (1715), *bouquet* (1716), *brochure* (1765), *beret* (1850).

A third problem with the Halle-Keyser account is that the Latin stress pattern, as distinct from the Old French one, is hardly attested in Chaucer. We have argued that the Latin stress pattern is distinct from that of Old French. Thus, evidence for the introduction of a Latin-type stress rule into English in Chaucer's time must rest on words that particularly exemplify this pattern. However, such words are quite rare in Chaucer, and tend to be Latin names. Halle & Keyser cite the following instances:

- (12) *Căppáněűs*, *Căříbdűs*, *Něptúnűs*, *Sătúrńěs*, *Týděűs*, *Zěphěřűs*.

We conclude that there is no evidence that either the Old French or the Latin stress rule gained a foothold in English at the time of Chaucer (see also

Minkova 1997, Redford 2003). We must look to a later period for the introduction of the Latin stress pattern.

#### 4. *A Parametric Account*

Our hypothesis is that the Latin stress rule was not added all at once to the grammar of English. A stress system is the result of interacting parameters. These parameters can change independently. In the case of English, the main changes involved:

- A. a change in directionality (parsing from the *left* vs. parsing from the *right*); and
- B. the position of main stress (*left* vs. *right*).

##### 4.1 *Old English Stress (Dresher & Lahiri 1991)*

We assume that the Old English foot type is the Germanic Foot, a resolved and expanded moraic trochee of the form ([head] dependent), where the head must consist of at least two moras and the dependent may have at most one mora. The two moras of the head do not have to come from the same syllable. The direction of parsing is left to right, and main stress is on the left.

(13) Old English stress: Sample parsings

- |                                       |  |  |
|---------------------------------------|--|--|
| a. (x .)<br>([μμ] μ)<br>H L<br>wor da | b. (x .)<br>([μ μ] μ)<br>L L L<br>we ru da | c. (x .)<br>([μ μμ] μ)<br>L H L<br>cy nin ga |
|---------------------------------------|--|--|

In (13a), the initial heavy syllable has two moras and occupies the head of the foot; the second syllable is light (one mora), and occupies the dependent

branch. In (13b), the initial syllable is light, and so the second light syllable joins it (a process called Resolution) to make up the head position of the foot. The third syllable occupies the dependent position. (13c) is similar, except resolution is with a heavy syllable.

The forms in (14a-c) illustrate High Vowel Deletion, whereby a short high vowel in an open syllable is deleted when it would occupy the dependent position of a foot. Underlined vowels are deleted; observe that a high vowel is not deleted in closed syllables (14d), or when it is resolved with the initial syllable (14c, e), or when it falls outside the foot (14f).

(14) High Vowel Deletion in Old English

- |    |   |    |  |    |   |
|----|---|----|--|----|---|
| a. | (x .) .<br>([μμ] μ) μ<br>H L L<br>hēa f <u>u</u> de | b. | (x .)<br>([μμ] μ)<br>H L<br>wor d <u>u</u> | c. | (x .)<br>([μ μ] μ)<br>L L L<br>we ru d <u>u</u> |
| d. | (x .)<br>([μμ] μ)<br>H H<br>wor dum                 | e. | (x)<br>([μ μ])<br>L L<br>lo fu             | f. | (x .) .<br>([μμ] μ μ)<br>H L L<br>nī te nu      |

Old English lacked secondary stress in final syllables. In (15), the underlined final syllables might be expected to have a secondary stress (because they ought to be the head of a foot), but they do not.

(15) Final syllables

- |    |   |    |  |
|----|---|----|--|
| a. | (x)<br>([μμ]) ([μμ])<br>H <u>H</u><br>ō <u>ðer</u>        | b. | (x) (x .)<br>([μμ]) ([μμ] μ)<br>H H L<br>ō ðer ne                        |
| c. | (x)<br>([μ μ]) ([μμ])<br>L L <u>H</u><br>æ ðe <u>ling</u> | d. | (x) (x)<br>([μ μ]) ([μμ]) ([μμ])<br>L L H <u>H</u><br>æ ðe òn <u>ges</u> |

In the earlier period, when long vowels could occur in final syllables, lack of final stress has to be accounted for by Final Destressing (FD):

(16) Final Destressing (FD)

Defoot a final foot that does not carry main stress and that has no dependent branch.

Later, long vowels in unstressed final syllables were shortened. Therefore, the only word-final syllables that appeared to be heavy were those ending in a consonant. The fact that such syllables did not receive a secondary stress was subject to reanalysis in terms of Final Consonant Extrametricality (CEM):

(17) Final Consonant Extrametricality (CEM)

Final consonants are extrametrical.

Another rule that came to play a role in the transition from Old to Middle English was Trisyllabic Shortening (TSS):

(18) Trisyllabic Shortening (TSS)

A stressed long vowel is shortened when preceding two unstressed syllables.

#### 4.2 *Middle English Stress*

The changes sketched above had no effect on the position of main stress, and the stress system in Middle English remained essentially as in Old English. However, the various changes did have the effect of metrically ‘shortening’ words. Thus, many words that had more than one foot in Old English were reduced to a single foot in Middle English (Lahiri & Drescher 1999:709).

## (19) Metrical shortening from Old to Middle English

OE	*hēringes	*lāverke	*cícenes	*clávere
FD	([H])([H])([H])	([H])([H]L)	([H] L)([H])	([H] L)L
CEM	([H]) ([H]L)	—	([H] L) L	—
TSS	([L H] L)	([L H] L)	([L L] L)	([L L] L)
ME	hēringes	láverke	cícenes	clávere

Old English words already tended to be short. Moreover, many Old English suffixes were, as they still are today, ‘stress neutral’, meaning they do not participate in the stress domain. Adding the further metrical shortenings described above, native English words tended to be no longer than a single foot. Therefore, evidence for setting the parameters of directionality and main stress was in short supply.

Among the Latin words that began entering the language in great numbers in the sixteenth century were many that were relatively long. These Latin loan words were thus able to fill the gap left by the native words. Without contradicting the majority of the native words, the loan words eventually caused the resetting of the directionality and main stress parameters.

#### 4.3. *Early Latin borrowings*

We follow Lahiri & Fikkert (1999) in claiming that Latin words were originally borrowed as morphologically simplex (see also Minkova & Stockwell 1996). Thus, *reverence* was not initially derived from *revere*, nor *austerity* from *austere*. Often, the ‘derived’ word was borrowed earlier. This hypothesis accounts for the stress patterns of these words, and provides evidence that direction of parsing and placement of main stress had not changed before 1530.

Consider words exhibiting so-called ‘Medial Laxing’. The stressed vowel in the ‘underived’ word is unstressed and laxed in the ‘derived’ word:

- (20) Medial Laxing (‘underived’ ~ ‘derived’)  
*admire ~ ádmirable; confide ~ confident; preside ~ président,  
 présidence; relate ~ rélative; revére ~ réverence.*

These words are problematic in all morphophonological analyses, including those of Liberman & Prince 1977 (morphological shortening); Kiparsky 1979 (sonorant destressing); Myers 1987 (medial laxing); and Kager 1989 and Gussenhoven 1994 (lexical exceptions). The main point of interest here is that in Medial Laxing alternations, ‘derived’ forms have stress consistent with the Old English pattern.

- (21) ‘Derived’ words borrowed earlier than ‘underived’ words  
*abstain* (1380) ~ *abstinence* (1300); *confide* (1455) ~ *confidence* (1430); *reside* (1460) ~ *resident* (adj.) (1382); *finite* (1493/1597) ~ *infinite* (1385); *potent* (1500) ~ *impotent* (1390); *preside* (1611) ~ *president* (1375); *revere* (1661) ~ *reverence* (1290).

#### 4.4. Changes in direction of parsing and main stress

The main stress parameter did not change together with directionality. We assume the following sequence:

- (22) Approximate dates of changes in metrical structure  
 Foot = Resolved moraic trochee throughout.  
 1400: Foot direction *left*, Main stress *left* (as in Old English).  
 1530: Foot direction *right*, Main stress *left*.  
 1660: Foot direction *right*, Main stress *right*.

#### 4.4.1 *Change of direction of parsing*

The preceding forms show that it was not sufficient to borrow Latin words to provoke a change in directionality. Following commentators such as Danielsson (1948) and Poldauf (1981), we associate this change with the introduction of words with Latin suffixes such as *-abl/-ible*, *-ation*, *-ic(al)*, *-ity*, *-ator*, etc. In such forms, stress is computed from the right side. Compare the analyses of *cómparable* and *résidence*, borrowed when direction of parsing was still from the left, with those of *sevériity* and *rárity*, borrowed after the change in parsing direction. Notice that the change in direction is evident only in (23a) and (24a), not in (23b) and (24b).

(23) Early borrowings: Foot direction *left*, Main stress *left*

- |    |                      |    |                      |
|----|----------------------|----|----------------------|
| a. | (x .) (x)            | b. | (x .)                |
|    | ([μμ] μ) ([μ μ])     |    | ([μ μ] μ)            |
|    | com pa ra ble (1413) |    | re si de<nce> (1386) |

(24) Later borrowings: Foot direction *right*, Main stress *left*

- |    |                    |    |                 |
|----|--------------------|----|-----------------|
| a. | . (x .)            | b. | (x .)           |
|    | μ ([μ μ] μ)        |    | ([μ μ] μ)       |
|    | se ve ri ty (1530) |    | ra ri ty (1560) |

#### 4.4.2 *The ‘Counter-tonic Principle’*

Danielsson (1948) attributes to Walker (1791) the observation that classical words were pronounced, in the English pronunciation, with alternating secondary stresses two before the tonic (e.g., Latin *àcadémia*). When Englished, the tonic and counter-tonic change places to conform to English ‘speech habits’ (e.g., *ácademy*).

Reference here is specifically to the habit of putting the main stress *left*. The Counter-tonic Principle shows that the main stress parameter remained set to *left* for some time after the change of directionality to *right*. It is worth noting that the addition of words stressed according to the Counter-tonic Principle

would have *increased* the evidence for main stress *left*. Thus, a word like *academy* clearly shows two feet, of which the left has the main stress. Therefore, it is not correct to say that English gradually moved from a ‘Germanic’ to a ‘Romance’ stress system. In this case, the same words that provoked a change of directionality to *right* reinforced the evidence for main stress *left*.

#### 4.4.3 *Main stress right*

What exactly caused the main stress parameter to finally switch to *right* is not entirely clear to us. However, a likely place to look is around or before 1660. According to Danielsson (1948:29), that year was the ‘turning point’ when French words kept final accent in English, as with suffixes like those in (25).

(25) Suffixes retaining main stress

*-ade, -ee, -eer, -esque, -ette, -oon.*

(26) Words with final stressed suffixes in Present Day English

*parade* (1656), *payee* (1758), *cannoneer* (1562), *grenadier* (1676), *arabesque* (1611), *musette* (1811), *bassoon* (1727).

Though some words like those in (26) may have entered the language before 1660, they may not have systematically retained final stress until around that date. It is plausible to suppose that final stress in words with these suffixes became more systematic after the change of main stress to *right*.

## 5. *Conclusion: Conservatism amid change*

It emerges from our analysis that both the core grammar (foot type, quantity sensitivity) and the core data (surface stress patterns) remain essentially unchanged in the course of seemingly radical changes to the English stress

system. Change occurred most readily in areas of the grammar where the native vocabulary did not provide decisive cues. Only in these areas could the new loan vocabulary provide native speakers with the key evidence that led to a reanalysis of the grammar.

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