Prosodic variation in ‘Lutgart’

Paula Fikkert

1. Introduction

Contrary to word stress in Modern Dutch (cf. Kager, Visch and Zonneveld 1987; Kager 1989; van der Hulst 1991; Trommelen and Zonneveld 1989, 1990; Nouveau 1994; Booij 1995), word stress in the older stages of the language is seldom discussed, although according to the handbook descriptions word stress seems to have been different from Modern Dutch (cf. Schönfeld 1947; Franck 1910; Van der Meer 1927; Van Bree 1977, 1987; Le Roux and Le Roux 1969). One of the few exceptions is Zonneveld’s (1992, 1993a, 1998) investigation of word stress in ‘Lutgart’. Zonneveld comes to the conclusion that in the past 700 years not much has changed with respect to Dutch word stress and that the stress system in ‘Lutgart’ is very similar to that of Modern Dutch. While Zonneveld analysed the meter in ‘Lutgart’ from the perspective of the Modern Dutch stress system, the analysis presented in this paper takes as its starting point the (hypothesised) prosodic system of Old Dutch and early Middle Dutch. I argue that the prosodic system of ‘Lutgart’ resembles that of the old and early middle stages of Dutch, which is fairly similar to that of the other West Germanic (WGmc) languages. It still has the Germanic Foot (Dresher and Lahiri 1991), and moreover, Open Syllable Lengthening (OSL) is not yet complete (Lahiri and Dresher 1999; Dresher, this volume). This latter argument challenges the assumption of all Middle Dutch grammars, namely that OSL took place in Old Dutch and was completed in Middle Dutch. The only evidence given for this assumption comes from rhyme. However, as we will see, rhyme in ‘Lutgart’ does not seem to motivate this assumption.

Another major conclusion in Zonneveld’s work, which is challenged in this paper, is that prosodic variation in ‘Lutgart’ is due to the status of schwa as a stress attractor. He argues that this confirms his synchronic analysis of Modern Dutch, which also assumes the stress attracting nature of schwa (Trommelen and Zonneveld 1989; Kager and Zonneveld 1986; Kager, Visch and Zonneveld 1987). I will, however,
argue that the variation is not due to the nature of schwa per se but is
due to prosodic preferences at stake at the time of ‘Lutgart’. Variation
is found only in certain environments which partly coincide with those
where English showed Trisyllabic Shortening (TSS) (Lahiri and Fikkert
1999). Dutch did not have TSS but chose a different way of dealing
with less preferred prosodic structures, as we will see in Section 5.

The claims brought forward here rely heavily on comparative evi­
dence from investigations of changes in the prosodic systems of the
West Germanic languages:

(1)  WGmc  →  Old English (OE)  →  Middle English (ME)  →  Modern English
       Old High  Middle High German  Modern German
       German (OHG)  (MHG)  

Although meter does not play a central role in this paper, evidence from
metrics will be used, as well as evidence from rhyme, loans and spell­
ing, to shed light on what the prosodic structure of that period was (cf.
Kiparsky and Youmans 1989). Central to the investigation are the
different types of prosodic variation found in ‘Lutgart’.

This paper is organised as follows: First, a description of the prosodic
system of WGmc and of Modern Dutch is given in Section 1. After
providing some general facts about ‘Lutgart’ in Section 3, Zonneveld’s
analysis of the prosodic structure of ‘Lutgart’ will be discussed in
Section 4. Section 5 is a detailed discussion of the types of variation
found in ‘Lutgart’ and gives an alternative analysis based on the
prosodic system of the older stages of other WGmc languages, while
in Section 6 it is argued that Open Syllable Lengthening had not yet
taken place in the language of ‘Lutgart’. Section 7 discusses the fact
that many instances of prosodic variation are levelled out in Modern
Dutch. In Section 8, Middle Dutch will be compared with Middle
English, which chose a different strategy to repair sub-optimal prosodic
structures. Finally, Section 9 summarises the main conclusions.

2. Prosodic structure of older West Germanic and Modern Dutch:
a comparison

There is ample evidence that word stress in the older stages of the West
Germanic languages was different from the modern situation (see Lahiri, Riad and Jacobs 1999 for an overview). Stress was by and large initial in West Germanic, i.e. stress usually fell on the first syllable of either the word or the root. Most Middle Dutch grammars mention that stress was still predominantly initial and attribute non-initial stress to three different groups of words (cf. Schönfeld 1947; Franck 1910; Van der Meer 1927; Van Bree 1977, 1987; Le Roux and Le Roux 1969).

First, prefixed verbs (and some prefixed adjectives) have word stress on the root, resulting in non-initial word stress, as in Middle Dutch and Modern Dutch *overbrûggen* ‘to bridge over’. Second, certain suffixes (mostly native ones) attracted stress to the syllable immediately preceding the suffix in so-called ‘compounding derivations’; later, new ‘compounding derivations’ followed the same pattern by analogy, as in *drie-hóek–drie-hóek-ig* (‘triangle–triangular’; lit. ‘three-corner-adj. suffix’) (Schönfeld 1947). Third, loan words maintained main stress in their original position. Schönfeld (1947: 102) remarks:

> Daarentegen hebben de vele Franse woorden en suffixen over 't algemeen hun eigen accent behouden, en zodoende werkten ze ertoe mee, dat het gevoel voor de accentuering van de eerste syllabe verzwakte en dat dus de kans op verschuivingen in inheemse woorden en woordgroepen toenam. [The many French words and suffixes, on the contrary, generally kept their original accent, and therefore weakened the feeling for accenting the first syllable and increased the chance for stress shifts in native words and word groups].

Although it is undoubtedly true that French loans influenced the prosodic structure of Dutch, the question still remains why this could happen in Dutch (and German) but not in English, where French loans did not retain final word stress. Contrary to the situation in Middle Dutch main stress in Modern Dutch is not assigned from the word beginning but from the end of the word: stress falls on one of the last three syllables.

While discussing the stress pattern of Middle Dutch none of the Middle Dutch grammars mentions foot structure. For West Germanic it has been argued that the older stages had a resolved moraic trochee, often referred to as the Germanic Foot (Dresher and Lahiri 1991). This is a quantity-sensitive trochee where the head of the foot must have two moras. In West Germanic feet were built from left to right (i.e. from the word beginning) and main stress was on the leftmost foot. Long
vowels and closed syllables counted as heavy in West Germanic. It has been proposed that the Germanic Foot was still prevalent in Middle English (ME) (Lahiri, Riad and Jacobs 1999; Lahiri and Fikkert 1999; Lahiri and Drescher 1999), and that the stress system changed in early Modern English (cf. Halle and Keyser 1971; Minkova 1997; Lahiri and Fikkert 1999; Redford 1999). In this paper, I will claim that early Middle Dutch also had the resolved moraic trochee, i.e. the Germanic Foot. Modern Dutch, however, has been analysed as having an uneven trochee (Kager 1989), or a moraic trochee (Lahiri and Koreman 1988), and even a syllabic trochee (Booij 1995).

Another aspect of West Germanic prosody that is relevant for Middle Dutch is the destressing of feet. Dresher and Lahiri (1991) argue that final non-branching (i.e. monosyllabic) feet underwent destressing in Old English. This mainly affected inflectional suffixes, which never bore stress. Old English had already shortened all long vowels in final syllables. The only heavy final syllables (monosyllabic feet) subject to final destressing were therefore closed syllables with a short vowel. Destressing in Old English could easily be reinterpreted as consonant extrametricality by the language learner. In German (and probably also in Dutch) the situation was different, since long vowels in closed syllables did exist in the older stages of those languages, as in OHG hanōm (‘cock’ DAT.PL) and zungūn (‘tongue’ NOM/ACC.PL). Moreover, Dutch and German had many derivational (native) suffixes consisting of a superheavy syllable that bore at least secondary stress and are still superheavy to this day (cf. Dutch/German -loosl/-los, -heid/-heit, etc.). Note that most native suffixes were reduced syllables in English (-less, -ness). Also Romance loans entered the Dutch and German languages with final stress, many of them having superheavy final syllables. It seems, therefore, that in general superheavy syllables are exempted from the destressing rule in Dutch and German; i.e. they seem to behave as if they were equivalent to a branching foot. In other words, in Dutch mostly monosyllabic feet ending in -VC were subject to destressing. This special status of monosyllabic -VC feet in Dutch has been preserved into Modern Dutch and is accounted for in many different ways: some claim that final syllables, except the superheavy ones, are made extrametrical (cf. Trommelen and Zonneveld 1989). Others claim that
a monosyllabic -VC foot is made extrametrical (cf. Lahiri and Koreman 1988; Kager 1989).

Except for the special status of final monosyllabic -VC feet, the situation in Modern Dutch is quite different from the one of early West Germanic. Most, but not all, authors agree on the following two points for Modern Dutch: (a) feet are built from right to left, main stress falling on the rightmost foot, and (b) the foot is a quantity-sensitive trochee (cf. Kager 1989). The exact form of the foot is still a matter of dispute, but in any event the Modern Dutch metrical pattern is not the same as in early Germanic. Quantity also is different: in Modern Dutch only closed syllables count as heavy, long vowels do not. The differences are summarised in (2):

(2) Prosodic structure in older West Germanic versus Modern Dutch

<table>
<thead>
<tr>
<th>Older West Germanic</th>
<th>Modern Dutch</th>
</tr>
</thead>
<tbody>
<tr>
<td>• initial main stress</td>
<td>• main stress on one of last three syllables</td>
</tr>
<tr>
<td>• Germanic Foot</td>
<td>• Quantity-sensitive moraic trochee</td>
</tr>
<tr>
<td>• Quantity: VV and VC are heavy</td>
<td>• Quantity: closed syllables are heavy</td>
</tr>
<tr>
<td>• final defooting of non-branching feet</td>
<td>• extrametrical -VC syllables/feet</td>
</tr>
</tbody>
</table>

The question, of course, is how and why the prosodic systems of the West Germanic languages changed so dramatically. The goal of this paper is to gain more insight into the prosodic structure of the Middle Dutch language at the time of ‘Lutgart’. The main questions addressed are the following:

(3) Main questions
(i) What was the foot structure at the time of ‘Lutgart’? Was it still the Germanic Foot, or had it already changed?
(ii) When did OSL become active in the language?
(iii) When did stress shift to the right edge?
(iv) Why did Romance loans keep their own stress pattern?
3. The meter of ‘Lutgart’

3.1. General facts

The ‘Sente Lutgart’, i.e. the ‘Copenhagen Lutgart’ is a very elaborate Dutch adaptation of Thomas van Cantimpré’s ‘vita piae Lutgardis’, done probably by Willem van Affligem, who was born in Mechelen, studied in Paris, and went to Affligem and Sint-Truiden, where he died in 1297 in the function of abbot (Van Veerdeghem 1899, Knuvelder 1982; Gysseling 1985). ‘Sente Lutgart’ is the earliest Middle Dutch work of considerable length; it counts 20,406 pairwise rhyming lines. It was probably written between 1263 and 1270. Only books two and three still exist.

The work describes the life of the holy woman ‘Lutgart’ who was born in Tongeren in 1182. In 1194 she entered the Benedictine convent in Sint Truiden and moved to the convent Les Awirs, or Aywières, near Liège in 1206. There she stayed until her death in 1246. Her love for God was remarkable and also determined her relationship to people. During much of her life she abstained from food (except for bread and beer) as a penance for the sins of her fellow men. Almost immediately after her death the original Latin prose version was written. The Dutch adaptation is much more than a translation: it is a poem written in a rich style.

3.2. Meter in ‘Lutgart’

The meter of ‘Lutgart’ is remarkable in that it is the only Middle Dutch text written in a pure iambic meter. According to Zonneveld, the definitions given for Chaucer’s iambic pentameter by Halle and Keyser (1966) are also by and large applicable to ‘Lutgart’. They are given in (4):
(4) Metrical principles for Chaucer’s iambic pentameter (Halle and Keyser, 1966: 380–381)

(a) Principle I
The iambic pentameter verse consists of ten positions to which may be appended one or two extrametrical syllables.

(b) Principle II
A position is normally occupied by a single syllable, but under certain conditions, it may be occupied by more than one syllable or none.

Condition 1. Two vowels may constitute a single position, provided that they adjoin or are separated by a liquid or nasal or by a word-boundary, which may be followed by $h$-, and provided that one of them is a weakly stressed or unstressed vowel.

Condition 2. An unstressed or weakly stressed monosyllabic word may constitute a single metrical position with a preceding stressed or unstressed syllable.

(c) Principle III
A stress maximum is constituted by a syllable bearing linguistically determined stress that is greater than that of the two syllables adjacent to it in the same verse. A stress maximum may only occupy even positions within a verse, but not every even position need be so occupied.

However, a few changes are needed for the principles to hold for the meter of ‘Lutgart’. First, ‘Lutgart’ is written in a rhyming *iambic tetrameter*. It ideally consists of eight (instead of ten) positions: w s w s w s w s, as in l. 9 in (5), to which one extrametrical syllable may be appended to create a feminine rhyme (ll. 1–4, 8), which is actually very frequent. This extrametrical syllable must contain a schwa, i.e. it cannot have a full vowel (Zonneveld 1992, 1993a, 1998).

(5) First lines of ‘Lutgart’

00001 Nu hébbic ý met wáren wárden
00002 En déel der úiten uán lutgárden
00003 Uerclárt gi héren énde vrówen
00004 Daer íc in mí te góeder trówen
Line 7 shows that the number of syllables can be higher than 9. The underlined schwas in (5) and (6) are in elision position (see Halle and Keyser's Principle II): they form one position with the following vowel: ‘synaloepha’. This not only occurs in the context of schwa plus vowel, but also if schwa is followed by a word starting with /h/, as in (6a) or a coronal consonant, as in (6b); and occasionally if schwa is following by a word starting with a /w/, as in (6c):

(6) Contexts for elision
a. 00016 Ende háre wél gerákde léuen
   00017 Dat sí daer léiddé hebdí gehóert
   00061 Die lóegene hóren óuer wáer
   00123 Na háren wésene háre wérke
   00144 Want álse hi héft geségt al út
   00248 Dies dóchte hen álleen wél geuóege
   00391 Al clágende hébdí dís uerlíj
b. 00169 Ende nit onthóuden dát men séit
   04544 Ende dáer dat sócramént ontfníc
   04001 Dat gí uwes sinne wórdt so uróet
   00275–3² Jnt héilege lánt van óuer zée
   00237 Dien háestelíke was cónt gemáect

Occasionally, there are other instances where a foot seems to consist of more than two syllables. One could account for those cases by assuming that elision also applies word-internally (7a), indicated by double underlining. Instances where a position is not occupied are rare (7b):

(7) Feet with more or less than two syllables
a. 00473 Daer sí **uolléuedé** in gróten éeren
   00598 Die mét gepróeueder héresién
Line-initial and line-final positions often behave differently from line-medial ones. In line-final position, i.e. in rhyme position, no unstressed syllables with full vowels occur. Here, word stress is sometimes shifted, since the rhyming element must bear stress. This poses a limit on the kind of variation, as shown in (8): *viánt* can occur with initial or final stress line-internally, but only occurs with final stress line-finally. It seems that the notion of stress-maximum (cf. Principle III) is not applicable in line-final position (Zonneveld 1992, 1993a, 1998).

(8) No variation line-finally

13548  Hi vindt din viánt wél so kóene  
12197  Dats die viánt die félle ghír  
13551  Dat gi die pláche dint viánt  
(13552) En rúmet nít. want hí in hánt)

In line-initial position inversion of the iambic stress pattern may occur (which, according to Zonneveld, occurs always phrase-initially), as shown in (9a); (9b) gives examples of inversion line-internally, which is not very frequent:

(9) Line-initial inversion

a. 01003  Wéder si quáet sijn óchte góet  
01633  Tüschen den uiánt énde háre  
02815  Állen sondéren bést teurómen  
03024  Cóenlic uerméten dis dat sí  
11765  Brúder damáes van bélľengém  
12516  Kóninc philíps van vránkerike  
01451–3  Wáren si pápen óchte clérke  
02672–3  Vrówen sybílen óc verlíjt  

b. 01131  Met slágen gróet sónder getál  
04517  Die bát óuer die urówe góet  
09698  Die sí óuer die nónné déde
Of course, the most important principle for analysing the prosodic system is Principle III. According to Zonneveld, the basic rules for ‘Lutgart’ are: (i) all monosyllabic content words bear stress; (ii) all polysyllabic words with one full vowel bear stress on that vowel; (iii) stress in words with more than one full vowel falls where the Modern Dutch speaker would expect it. This means more or less that stress-maxima correspond to even positions, but unstressed syllables can occur in even position. The focus here is on those cases that run against the intuition of the Modern Dutch speaker, since many of those cases show variation in word prosodic structure as well.

4. Previous analyses of word stress in ‘Lutgart’

As mentioned before, studies of word prosodic structure of earlier stages of Dutch are rare. One of the most detailed is Zonneveld’s (1992, 1993a, 1998) insightful work on the stress pattern of ‘Lutgart’ in which he arrives at two main conclusions. First, he claims that word stress is by and large the same as in Modern Dutch, and second, that the attested variation in ‘Lutgart’ is due to the stress-attracting nature of schwa. Both conclusions will be discussed and challenged below.

4.1. Word stress in ‘Lutgart’ according to Zonneveld

Based on a metrical analysis of ‘Lutgart’ Zonneveld arrives at the observations in (10), concluding that word stress at the time of ‘Lutgart’ was very similar to word stress in Modern Dutch.

(10) Zonneveld’s observations regarding main stress in ‘Lutgart’

a. Words ending in a vowel have penultimate stress: grácie, glórie, senténtie, remédie, ymaginátie; the only exception (other than a few names): baillú, and possibly Golgathá.

b. Disyllabic words ending in a VC rhyme have final stress: procés, rabát, David. In trisyllabic words it is difficult to decide whether main stress is final or initial: Názaréth, Bétlehém,
Gábriél. The only longer word ending in a closed syllable which has penultimate stress is Zácharías.

c. Words ending in VVC have final stress too: parlóer, Damáes, juéel, amoréus, kappeláen, latín, abíjt, paradíjs, dignitéit.
d. Words ending in VCC also have final stress: convént, prosént. In trisyllabic words it is most likely also final: argumént, iúgemént.

As mentioned in the introduction, the standard analysis of Dutch word stress assumes that moraic trochees are built from right to left, and closed syllables count as heavy. Main stress is assigned to the final foot. However, either final -VC feet (Lahiri and Koreman 1988) or -VC syllables (Trommelen and Zonneveld 1989; Kager 1989) are made extrametrical and will not receive main stress. Superheavy syllables are not made extrametrical, hence they usually receive main stress.

From this short description it can be seen that, although (10a, c, d) follow the rules for Modern Dutch word stress, words ending in a stress-bearing -VC rhyme (10b) do not (cf. Trommelen and Zonneveld 1989; Kager 1989; Nouveau 1994; Lahiri and Koreman 1988). We will come back to this issue below.

4.2. Prosodic variation and schwa

Zonneveld's second conclusion is that the attested stress variation in 'Lutgart' is largely due to the stress-attracting nature of schwa (Zonneveld 1992). He observes that variation occurs in complex words (including compounds, pseudo-compounds like líchame, antwerde, ambacht, bisschop, bispel, prefixed and suffixed forms). If a complex word ends in a schwa, stress is invariably on the syllable immediately preceding schwa (11a); absence of the final schwa results in initial stress (11b). A few exceptions occur: disyllabic complex words and proper names with final stress occur (11c), as well as complex words where stress does not fall on the syllable immediately preceding schwa (11d).
(11) Prosodic variation and schwa

According to Zonneveld (1992), the forms in (11c) and (11d) indicate pure confusion with respect to the stress rule before schwa. Alternatively, they need to be seen as infrequent exceptional cases. In the next sections, I argue that this variation is neither due to the nature of schwa, nor to exceptional lines, an argument that has been brought forward by Halle and Keyser (1971) to account for the stress pattern in words like ‘brimstone’ in Chaucer. Rather, this variation is caused by conditions on foot structure in relation to the metrical conditions that are at stake in ‘Lutgart’.

From the discussion above it is clear that forms containing more than one full vowel are of interest to us, because they conflict with what
Hanson and Kiparsky (1996) have named the principle **FIT**:  

(12) **FIT**: Languages select meters in which their entire vocabularies are usable in the greatest variety of ways. (Hanson and Kiparsky 1996: 294)

The words that possibly conflict with FIT are mostly Romance loans, prefixed and suffixed words, and compounds.

### 5. Evidence for West Germanic word stress in ‘Lutgart’

In this section we consider the prosodic variation in ‘Lutgart’ from the viewpoint of the early West Germanic prosodic system. In other words, we assume the following:

(13) Assumptions regarding the prosodic system of early Middle Dutch

a. Stress is by and large initial, i.e. stress usually falls on the first syllable of the root.

b. Germanic Foot (Dresher and Lahiri 1991): a quantity-sensitive uneven trochee, in which the head of the foot must have two moras.

c. VV and VC both contribute to weight.

d. Feet are built from left to right.

e. Destressing of final non-branching feet.

An examination based on these assumptions reveals that variation basically occurs in two types of prosodic words: those consisting of two monosyllabic feet (H)(H), i.e. feet consisting of a single heavy syllable, and those consisting of two feet of which the first is monosyllabic and the second branching (H)(HL), as can be seen in (14a, b), where H stand for heavy, L for light, defooted feet are underlined and bold indicates the position of stress, as attested in ‘Lutgart’. A subtype of (14b) is the one in (14c) where two prosodic words are combined in a compound structure. That is, either these forms have variable stress in ‘Lutgart’ or they have stress patterns different from the intuition of the speaker of Modern Dutch. Some examples of the respective form types are
given in (15), where vowel length is marked above the relevant vowels:

\[(14)\quad \text{Variation in prosodic forms} \]

<table>
<thead>
<tr>
<th>Form</th>
<th>Expected structure</th>
<th>Attested structure</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. HH</td>
<td>(H)(H)</td>
<td>(H)(H) and (H)(H)</td>
</tr>
<tr>
<td>b. HHL</td>
<td>(H)(HL)</td>
<td>(H)(HL) and sometimes (H)(HL)</td>
</tr>
<tr>
<td>c. HLL</td>
<td>(HL)L</td>
<td>(H)(LL) and sometimes (HL)L</td>
</tr>
</tbody>
</table>

(15) a. ambacht, torment, auont, blîschap, bernart, bischop, viânt, mesdaet, orlôf, anschi(j)n, bíspel, kerkhof
b. abdesse, ambachte, erminge, ermoede, kinnesse, uonnesse
c. líc-hâme, blí-schàpe, bí-spèle

We will discuss the variation in cases with two unequal feet, (H)(HL) in Section 5.1, and in Section 5.2 the forms with two equal feet, (H)(H) are discussed.

5.1. \((H)(HL)\)

Word prosodic structures of the type \((H)(HL)\) with stress on two adjacent syllables have a stress clash. The clash can in principle be resolved in two ways: delete stress either from the first (main stress) foot or from the second. The structures with non-branching first and a branching second foot predominantly have stress on the branching foot, as can be seen in the data in (16a), but cases with the predicted initial word stress pattern are also attested, as shown in (16b). It seems irrelevant whether the word is monomorphemic or a compound, prefixed or suffixed form.

(16) a. 02552 Die dfe **uiánde** méest onttréden 02547 Jégen die crách nuanced dín **uiánde** 14422 Van dín **ambáchte** ende hóe si díngen 00439 Met bésechhéiden ván **ambáchte** 03758–3 Gewárech gnóch **liittéeken** gáf 02918 Al nóch **orcónden** uán lutgárden 00249–3 Die ábsoluéerde mét **orlóue**
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In the forms in (17a, b) no stress clash occurs: stress can be on the first and on the second foot, since there is an intervening unstressed syllable. Even in words with the structure in (17c) where the heads of two feet are adjacent, there is an intervening syllable which seems to be enough to avoid a stress clash. In words with the structure of (17d) the second foot is made stressless. Of course, none of these forms does tell us anything about the location of main stress.

(17) a. (HL)(H) áduocáet, brúdegóem
b. (LL)(H) stédekíjn, wíuekín
c. (LH)(H) bèsechheit, sàlechheit
d. (H)(H)(H) wónderlíc, wérdechhéit

Another way to look at the structure (H)(HL) is the following: The situation in which the main stressed foot is less complex than the secondary stressed foot seems to be marked (cf. Dresher and van der Hulst 1993, 1995, 1998; Lahiri and Dresher 1999; Lahiri and Fikkert 1999). Ideally, the main stressed foot is at least as complex as secondary stressed feet. The Middle Dutch language of 'Lutgart' apparently chose...
to shift stress to the more complex second foot, consisting of two syllables. English, in contrast, chose restructuring of the word by applying Trisyllabic Shortening, which also had the effect of improving the prosodic structure of words (see Section 8).

5.2. \((H)(H)\)

Words consisting of two heavy syllables, i.e. two feet, also have a stress clash. Since final non-branching feet generally undergo destressing in West Germanic, one would expect to find initial word stress, and this indeed is the predominant pattern in ‘Lutgart’, as shown in (18a), although final stressed forms also occur (18b).

(18) a. 04060  Dat sáł v ámbacht wésen dáer
     00255–3  Droch hí dat ámbacht ván meestrién
     11507  Die ámbacht hádden dáer gedrégen
     02148  Din úíánt quáet. din bóseen ghír
     07099  Die úíánt díe se wílde uéllen
     13548  Hi víndt din víánt wél so kóene
     02129  Dat bíspel dát ic ’v uertrác
     02133  Daer íc dat bíspel áue lás
     01619–3  Her bérnart híre wánt gi mí
     08540  Want hí was urómech énde kóene
     03405  Dat léelic sín ut háren ógen
     04029  Dat hí es léelic óchte ontwért
     00536  Want síne schönheit wás uerlóren
     01426  Hir áf die wárheit ónderuónden
     07641  Dat és die dóefheit quáderhánde
     07760  Van hárré dóefheit díe si suár
     01071–3  Van dérré wérschap óp den dách
     03348  Dar wás die blíschap hárde gróet

b. 13551  Dat gí die pláché dínt víánt
     13127  Hare ógen. wánt die víánt
     03361  Dat die úíánt hare áne léide
     01053–3  Was díś ambác̕hts aldáer geplón
     05098–3  Dats míjn ambác̕ht in hémelríke
Table (19) shows exactly where the variation occurs in (H)(H) words, and where not. The number of instances in which the form is attested in line-final position is given in parentheses.

(19) Frequency of selected words with the pattern (H)(H) in ‘Lutgart’

<table>
<thead>
<tr>
<th>Monomorphemic</th>
<th>'σσ'</th>
<th>σ'σ</th>
<th>σ'σσ</th>
<th>'σ'σ</th>
</tr>
</thead>
<tbody>
<tr>
<td>ambacht</td>
<td>14</td>
<td>12  (5)</td>
<td>17</td>
<td>-</td>
</tr>
<tr>
<td>bernart</td>
<td>1</td>
<td>2   (2)</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>bis(s)chop</td>
<td>1</td>
<td>2   (2)</td>
<td>1</td>
<td>-</td>
</tr>
<tr>
<td>ijacop/b</td>
<td>3</td>
<td>1   (1)</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>v/uïant</td>
<td>75</td>
<td>36  (25)</td>
<td>11 (9)</td>
<td>1 (1)</td>
</tr>
<tr>
<td>ihesus</td>
<td>24</td>
<td>2   (1)</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>brabant</td>
<td>2</td>
<td>10  (8)</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>convent</td>
<td>28   (19)</td>
<td>11 (3)</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>thomas</td>
<td>4</td>
<td>2</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>abijt</td>
<td>15   (11)</td>
<td>1</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>ada(e)m</td>
<td>4</td>
<td>4</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>alart</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

| Prefixed words         |      |     |      |     |
| mesdaet                | 1    | 2   (2) | 10 (8) | -   |
| örlöf                  | 12   | 9   (3) | 3 (2) | -   |
| anshi(j)n              | 8    | 10  (9) | -   | -   |
| bispel                 | 28   | 4   (2) | 2 (2) | 3   |
| angaen                 | 1    | -   | -   | -   |
| onrecht                | 1    | 3   | -   | -   |
| mesdaen/doen           | 10   (8) | -  | -   | -   |
| af(f)laet              | 10   | -   | -   | -   |
| afhonst                | 1    | -   | -   | -   |
The following observations can be made. First, we can see that many finally stressed cases occur line-finally, where a very strong constraint against extrametrical syllables with full vowels holds: there are no cases of extrametrical syllables with full vowels in ‘Lutgart’ (Zonneveld 1992, 1993a, 1998). However, this does certainly not account for all variation.

Second, some words do not show any variation at all. Most strikingly, Romance loans with the same (H)(H) structure do not show any variation: they invariably occur with final stress, as shown in (20):

(20) 00904-3 Behör’t noch in tormént tesíné
     02601-3 Noch daér en és tormént noch píné
     02773  Nutt éen pulmént met úwen bróède
     00654-3 Dan éen pulmént met bróède alléne
     09160  Die hém consént uan hértén géuet
     13277  Hadde hí uan hértén dín consént
     02828  Do wás gespréken dít sermóén
     00244-3 Daer hí sermóén ten úólke déde
     01475  So quàm hí gándèn in dát parlóer
     05758  Ende ínt parlóer en tèken máket
     00232-3 Genámt was hí brúder jordáén
     00321-3 Brúder jordáén die iácopíjn
Most Romance loans—this is particularly true for the Romance suffixes—end in superheavy syllables (-VVC or -VCC), a fact also reflected in the spelling (see also Section 6). These superheavy syllables seem to be regarded as branching feet (cf. Hayes 1995: 163–164), i.e. they are analysed as having the structure (H)(HL), and stress is preferred on the branching foot. Seen in this light, the Romance words were able to keep their original final stress, without disturbing the prosodic constraints of the language.

Even though this same analysis could be extended to native words (and has been for Modern Dutch (cf. Langeweg 1988; Zonneveld 1993b)), this does not work for words like *ambacht* and *viant*. Whereas these words vary in stress in ‘Lutgart’, in Modern Dutch variation is levelled out in favour of initial stress, making them exceptional with respect to the words stress rules of Modern Dutch. I assume that in these cases the final coronal obstruent does not add weight to a heavy syllable. A similar analysis is proposed to account for the fact that certain -VCC\textsubscript{coronal} syllables count as light under consonant (cluster) extrametricality in Middle English (Lahiri and Fikkert 1999).

Similar to Romance loans, suffixed words with the structure (H)(H) where the final foot contains a strong native suffix, such as -doem, -heit, -lijk, -scap, -kijn, -linc, -âre, -ech, -inghe, -inc, -ich, -nisse, etc., which according to many authors (cf. Franck 1910: section 11; Le Roux and Le Roux 1969) always carried secondary accent, usually do not show any variation in ‘Lutgart’: they invariably have stress on the first foot. They sometimes occur in line-initial position, which could be interpreted as line-initial inversion, as in (21a). The only exceptions seem to be instances of the word *ermînc* (‘poor one’), as shown in (21b):

(21) a. 03505 Séérlic mesbáerende útermáten
02616 Círlíc gecronet útermáten
05041-3 Quálíć genóemen. bínnen schéen
03024 Cóenlíc uerméten dís dat sí
06010 Éerlíc uan góde wárt ontfáen
b. 05623 Dat íc *ermînc* ende íc kaitíj
08369 Mar íc *ermînc* die tésen stónden
The lack of variation here might be accidental. As we have seen before, syllables with secondary stress can appear in uneven positions in ‘Lutgart’. However, just as with compounds and monomorphic words, we would have expected to find variation in the stress pattern of words with the prosodic structure (H)(H). Nevertheless, there seems to be a strong tendency to have stress on the root rather than on the suffix. In most instances of disyllabic suffixed forms both the base and the suffix consist of a superheavy syllable. It may the case that superheavy syllables are regarded as (HL) feet. In that case, a word like *coenlic* has the structure (HL)(HL) where stress is initial. It would also explain why a word like *erminc* ends up having final stress: it would have the structure (H)(HL) where the second foot is more complex as the first, and therefore receives main stress (Section 5.1).

An alternative and more tenable explanation could be that feet containing suffixes have a different status than feet that are (part of) a monomorphic word. This then suggests that these suffixes, which were independent words, have been grammaticalised in ‘Lutgart’ and reduced to suffixes (cf. Schönfeld 1947; see also Lahiri, this volume). Thus, originally they had the structure in (22a) and grammaticalised into (22b):

(22) a. \([('N)_{Wd}('N)_{Wd}]_{\text{Compound}}\]
    b. \([('N)_{Wd} \text{suffix}]_{Wd}\]

These suffixes seem to be extrametrical if they consist of a monosyllabic foot. Alternatively, one could hypothesise that in ‘Lutgart’ native suffixes are reanalysed as level II suffixes, and attached after stress assignment. However, this analysis cannot account for the following fact. Under attachment of an inflectional ending these derivational suffixes are disyllabic. When attached to a monosyllabic base they have the prosodic shape (H)(HL), where stress is predominantly on the second foot, independent of the morphological nature of the word (Section 5.1). In other words, there seems to be an interaction between the nature of the prosodic structure of the final foot and the morphological status as a derivational suffix. If the final foot is more complex than the initial one, the final foot tends to receive stress. If both feet are equally complex, there is a strong preference to have main word stress...
on the root, rather than on the suffix. Romance suffixes invariably receive stress, but might not yet be considered suffixes. A similar analysis is proposed for English words with the suffix -ity (cf. Lahiri and Fikkert, 1999).

Prefixed words show similar behaviour: many prefixed words (both verbs and nouns!) such as af(f)læt, afhónst, mesdáen, onrécht, etc., have stress on the root, and show no variation. Here, the prefix often consists of a heavy syllable, whereas the base has a superheavy syllable: they could be analysed as having a (H)(HL) structure, accounting for stress on the second foot. However, alternatively, the prefixes could have lost their status as independent words at the time of ‘Lutgart’ and are reduced to bound morphemes. Again, in cases of two feet of equal complexity there seems a preference for stress on the root.

A look at Modern Dutch reveals that it kept stress on the root in suffixed words, whereas in prefixed words stress falls on the prefix in nouns like ónrecht, but on the stem in verbs like misdáan, suggesting that nouns were reanalysed at a later stage. I will leave this issue for future research.

6. Open Syllable Lengthening

So far, we have only discussed words with an initial heavy syllable, since table (19) only gives words of the shape (H)(H). If Open-Syllable Lengthening had been a ‘fait accompli’ at the time of ‘Lutgart’, all stressed initial open syllables with originally short vowels would have been lengthened, and all words should then fall under the categories described in the previous section. However, on the assumption that Open Syllable Lengthening had not yet taken place, those words still have a different prosodic structure: (LH) or (LL). Some LH forms are given in table (23). There are very few native words where two full vowels occur in adjacent syllables.11 Strikingly, all LH forms have all initial stress, even if an ending is added to the disyllabic form, as shown in (24).
Why does a word like coninc invariably have initial stress, while erming does not? This is not due to confusion about the behaviour of schwa, as suggested by Zonneveld. Rather, it seems that these words have different prosodic structures, relating to different stress patterns, particularly in the trisyllabic forms with an inflectional ending. Whereas both coninc and coninge comprise one foot, erming and erminge consist of two feet. This can only be understood if we assume that OSL had not yet applied and that the Germanic Foot was still prevalent. The different structures are given in (25):

(25) No OSL; Germanic Foot

\[
(\text{[L H] } ) (\text{[L H] L}) \, (H) \, (H) \, (H) \, (H L)
\]

coninc coninge erming erminge

All Middle Dutch grammars assume that OSL was completed by the time of the first Middle Dutch texts (Franck 1910: § 13; Schönfeld 1947: § 30; Van Bree 1977: § 29.4). There is not much evidence for this claim. The spelling in MNL texts is not very helpful. In ‘Lutgart’ only originally long vowels are written long, although by no means consistently so. In addition, some Romance loans are also spelled with
long vowels. Original short vowels, however, are not written long. This in itself is not evidence that OSL did not apply, since it was entirely predictable which vowels would have been lengthened by OSL, and there is no need to reflect it in the spelling.

The only evidence given for assuming OSL comes from rhyme: it is claimed that originally long vowels and vowels lengthened by OSL can be rhyme-fellows, with the exception of originally long and lengthened ê/ë, which qualitatively different. However, ‘Lutgart’ predominantly has rhyming pairs where either both have originally long vowels, or both have originally short vowels (cf. also Franck 1910: §§ 13, 39). Therefore, even the evidence from rhyme does not convincingly show that OSL had been completed in ‘Lutgart’.

7. Analogical levelling or reanalysis of inflectional suffixes?

Table (19) shows that many words occur in ‘Lutgart’ both with the prosodic structure (H)(H) and (H)(HL), like ambacht–ambachte and vîant–vîande, where in the disyllabic forms stress can fall on either foot with a preference for the initial foot, but in the trisyllabic forms stress is predominantly on the final foot. Thus, the alternations in (26) exist:

(26) Disyllabic Trisyllabic
Preferred Less preferred Preferred Less preferred
(vî)(ant) (vî)(ânt) (vî)(ânte)

In Modern Dutch these words invariably have initial stress. One could explain this by assuming that some analogical levelling has taken place: the plural has taken the form of the singular, resulting in paradigms with the same prosodic structure (Kuryłowicz’s second law, cf. Hock 1991: Ch. 10). It could also be due to a reanalysis of inflectional endings as level II suffixes. This means that these endings are attached after stress is assigned, i.e. they have no influence on the prosodic shape of the base. Stress is assigned to a disyllabic base, where initial stress is,
for some reason, preferred. However, the question remains open why some superheavy final syllables do not bear stress (see discussion in Section 5.2). Interestingly, Modern Dutch still shows variation in prosodic word structures in certain cases. First, non-native words in -or and -on show vowel lengthening and stress shift on that vowel before the plural suffix -en, as in the following forms (cf. Booij 1995: 82):

(27) Singular    | Plural
---|---
dóctór | doktøren  ‘doctor’
proféssór | professøren  ‘professor’
démøn | demønen  ‘demon’
elektrøn | elektrønen  ‘electron’

These are all loans that entered the language in early Modern Dutch. Second, prosodic variation also occurs in words suffixed with what used to be a strong native suffix (Kloeke 1975; Kooij 1985; van Beurden 1987), deriving adjectives, as shown in the following words: víjand vs. víjándig and ámbacht vs. ámbächtelíjk. This is still productive. Apparently, distinctions in singular–plural pairs are more prone to undergo paradigm levelling, than related nouns and adjectives. Lahiri and Fikkert (1999) reached a similar conclusion for Middle English: differences in vowel length in the singular–plural were levelled out, contrary to those in pairs like sincère–sincérité.

8. Prosodic changes in Middle English and Middle Dutch

We have seen in the previous sections that in Middle Dutch main stress was on the final branching foot if the first foot was not branching; i.e. in words with the structure (H)(HL) stress was not on the initial, but on the final foot. Exactly the same forms were being restructured in Old and Middle English (Lahiri and Fikkert 1999). Whereas Dutch still had long vowels in closed final syllables, this syllable type did not exist any longer in Old English (Hogg 1992). Therefore, the only contrast in final syllables was between closed (heavy) and open (light) syllables. Final syllables never bore stress: open light syllables never constituted the head of a foot, and if closed syllables formed a foot on their own, they
were subject to the final destressing rule, which destressed final non-branching feet (Dresher and Lahiri 1991). This state of affairs could easily have led to a reinterpretation of final destressing as final consonant extrametricality (CEM) in Old English. The effect of introducing Consonant Extrametricality is to increase the uniformity of metrical patterns by abolishing the distinction between final H and final L syllables. Furthermore, since a light syllable can be the weak member of a foot where a heavy syllable cannot, many previously defooted final syllables can be included into a foot under a Consonant Extrametricality analysis, as in (28a). On the other hand, these changes had some less desirable results. First, Consonant Extrametricality led to an increase in words where the second foot is branching while the main stressed foot is not (28a, b). Assuming that the stressed foot is preferably more complex than or as complex as its dependent, this is not an optimal configuration. Whereas Dutch chose to improve this structure by shifting stress, in English Trisyllabic Shortening (TSS) improved these metrical structures, as can be seen in (28a). TSS also improved another set of less optimal structures. Consonant Extrametricality led to many more stranded syllables word-finally (28c, d). A final heavy syllable can form a foot on its own, even though it is subject to defooting, but a final light syllable does not have enough weight to support a foot of any kind; when the weak branch of the preceding foot is occupied, it remains stranded. This situation is also less than optimal on the assumption that languages prefer to parse syllables into feet whenever possible. TSS improved these metrical patterns too.

(28) Metrical structures and TSS (from Lahiri, Riad and Jacobs 1999)

<table>
<thead>
<tr>
<th>Old English</th>
<th>ME 1: CEM</th>
<th>ME 2: TSS</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>(a) (H) (H) (H) (H) (HL)</td>
<td>([LH]L)</td>
<td>*hēringes &gt; heringes</td>
<td></td>
</tr>
<tr>
<td>(b) (H) (HL)</td>
<td>-</td>
<td>([LH]L)</td>
<td>*lāverke &gt; laverke</td>
</tr>
<tr>
<td>(c) (HL) (H) (HL) L</td>
<td>([L]L)</td>
<td>*cicenes &gt; cicenes</td>
<td></td>
</tr>
<tr>
<td>(d) (HL) L</td>
<td>-</td>
<td>([L]L)</td>
<td>*clāvere &gt; clavere</td>
</tr>
</tbody>
</table>

Why did the two languages choose different strategies for improvement of sub-optimal structures? Although both still had the Germanic Foot, there were other differences between the two languages. First, English did not have a vowel length contrast in final syllables, whereas Dutch
did. Therefore, Final Defooting was not easily reinterpretable as consonant extrametricality in Dutch. Second, a huge number of Romance loans entered the Dutch language with final stress, while this was not the case in Middle English (cf. Lahiri and Fikkert 1999). In the medieval period the French influence on English was not as overwhelming as in Dutch. French loans where adopted with the prosodic preferences of the languages at the time of borrowing: they entered with initial stress in English, but could be adopted with final stress in Dutch, as shown in (29):

(29) English 'Lutgart' Modern Dutch

<table>
<thead>
<tr>
<th>Latin</th>
<th>latijn, latíne</th>
<th>latijn</th>
</tr>
</thead>
<tbody>
<tr>
<td>procés</td>
<td>procés</td>
<td>procés</td>
</tr>
<tr>
<td>prisóene</td>
<td></td>
<td></td>
</tr>
<tr>
<td>paradíjs</td>
<td></td>
<td>paradíjs</td>
</tr>
<tr>
<td>médicíne</td>
<td></td>
<td>medicijn</td>
</tr>
<tr>
<td>visióen</td>
<td></td>
<td>visióen</td>
</tr>
</tbody>
</table>

9. Conclusions

In this paper I have argued that the word stress system at the time of 'Lutgart' was not the same as that of Modern Dutch, but was more similar to that of the other West Germanic languages in the old and middle periods; i.e. the Germanic Foot was still prevalent and stress was in principle assigned from left to right. This claim differs significantly from the conclusion as formulated in Zonneveld’s manuscript (1998: 304) “there are no compelling reasons to arrive at a conclusion other than that very little appears to have changed with regard to Dutch word stress between ‘Lutgart’ and us” [i.e. Modern Dutch/PF].

It has furthermore been argued that, contrary to the established view (cf. Franck 1910; Schönfeld 1947; Van Bree 1977), Open Syllable Lengthening was not a fait accompli in early Middle Dutch, and that the language still had open syllables with short vowels. Only by assuming that OSL had not yet applied can we understand why stress in words like coninc and coninge invariably is initial: both forms comprise one foot, a ([LH]) and a ([LH]L) foot respectively. If OSL had applied, we
would have expected to find variation in the stress pattern, particularly in the case of an inflectional ending.

In addition, it has been shown that variation in the prosodic structures of 'Lutgart' is not due to the stress-attracting nature of schwa, as argued in Zonneveld (1992, 1993a), but is due to complex interactions between prosodic preferences and morphological structure. Variation mainly occurred in words with the prosodic structure (H)(H) or (H)(HL). (H)(H) words could have stress on either syllable, largely depending on two factors: (a) the position in the line, (b) the morphological structure of the word. In line-final position final stress is obligatory; otherwise, there seems a preference for initial stress, unless the first foot is a prefix. In that case, stress preferably falls on the root, independent of the syntactic category of the word; i.e. there is no difference between the prosodic behaviour of prefixed nouns and verbs in 'Lutgart'. Conversely, if the second foot is a suffix, stress tends to fall on the first foot. Turning to (H)(HL) words, stress is clearly preferred on the second foot. I argued that this is so because the main stressed foot prefers to be more or at least equally complex than secondary-stressed feet. This preference overrules the preference for stress on the root-initial syllable: if the second foot contains a suffix plus an inflectional ending, stress is still preferred on the final foot. This preference is reinforced by the large number of Romance loans with final stress entering the language. By allowing stress to shift and by analysing superheavy syllables as branching structures, Romance loans can now be incorporated into the language with final stress, contrary to the situation in English. A question remaining unanswered is why not all superheavy syllables are reanalysed as constituting branching feet, particularly not the native superheavy suffixes. It seems the language prefers to have stress on the root, reinterpreting superheavy native suffixes as heavy, rather than superheavy.

The structure (H)(H) never arose in Old/Middle English, since all final syllables were light for stress purposes (for various reasons). Old English had words with the less optimal (H)(HL) structure, but chose to restructure these by way of Trisyllabic Shortening: (H)(HL) structures evolved into ([LH]L) feet. This development also explains the difference in stress pattern for Romance loans in Dutch and English.

Finally, prosodic differences between singular and plural forms are levelled out in both in English and in Dutch, although differences
remain present in other paradigms in the language. This raises the question whether levelling is more likely to occur in some paradigms than others, and whether inflectional endings are more prone to lead to grammatical changes, than derivational endings, which will require more in depth studies of change and variation in prosodic structure.

Acknowledgements

I want to thank Jennifer Fitzpatrick-Cole, Carlos Gussenhoven, Astrid Kraehenmann, Aditi Lahiri, Michael Redford, and Wim Zonneveld for their detailed comments which have led to many improvements. This work has been supported by the DFG (German Science Foundation), SFB 471 ‘Variation and change in the lexicon’, Project A4 and by the KNAW (Royal Dutch Academy of Science).

Notes

1. Aside from the manuscript that is kept in Copenhagen and originates in Brabant, there also exists another adaptation of the ‘vita piae Lutgardis’ which originates in Limburg and is kept in Amsterdam.
2. “–3” indicates that the line comes from book 3; no indication means it comes from book two (dander boech).
3. The possibility of ‘synaloef’ also occurs with uwe (which can thus be mono- or disyllabic) plus any word (cf. Zonneveld 1992, 1993a, 1998):

   00301 Vwe grácie díc mi só beuérde
   11305 Je bén vwe pórtie énde v schát
   versus 01795 Ende díc mi ‘vwe wónden gróet
   00361 Endé ‘vwe grácie séndet méde

4. This could also indicate that in the word ‘leven’ (Got. liban) Open Syllable Lengthening had not yet applied. The sequence ‘leue’ consists of two light syllables, which form the head of the foot. See section 5.
5. This form is in line-initial position and could be reinterpreted as initially-stressed assuming line-initial inversion.
6. Four forms are in line-initial position and could be reinterpreted as having initial stress (line-initial inversion).
7. Three times the trisyllabic form occurs with initial stress
8. Next to the disyllabic form, trisyllabic anegaen is found.
9. Once it occurs line-initially.
10. Also *bodeschap* is found.
11. With Romance loans it is hard to tell what the original vowel length has been (see (Luick 1907; Bliss 1952; Lahiri and Fikkert 1999) for a similar discussion with respect to Romance loans into English), or how it has been borrowed.

Many unstressed vowels—at least in inflectional endings, but many more instances—had already been reduced to schwas at the time of ‘Lutgart’, since no variation occurs in the following words (cf. de Vries 1992; van Wijk 1949):

\[
\begin{align*}
\text{werelt} & \ < \ 	ext{OS wërold, OE weorold} \\
\text{maget} & \ < \ 	ext{OHG magad, OS magath} \\
\text{dochter} & \ < \ 	ext{OS dohtar, OE dohtor} \\
\text{hemel} & \ < \ 	ext{OHG/OS himil} \\
\text{meester} & \ < \ 	ext{OHG meistar, OS mëstar}
\end{align*}
\]

These words have invariably initial stress, whereas words like *viant* and *brabant*, with two full vowels show variation in their stress patterns. The question remains why some words kept two full vowels while in most cases unstressed vowels were reduced. I leave this issue open.
12. Possibly (native) derivational suffixes were reanalysed as level II suffixes as well, although may have occurred later.
13. A different explanation is that English and Dutch borrowed a different kind of French: Anglo-Norman, which was borrowed into English, had undergone considerable change in comparison to the Parisian version of French, which was borrowed into Dutch and German.

References

Beurden, Lisan van

Bliss, Alan Joseph

Booij, Geert E.

Bree, Cor van
Bree, Cor van

Dresher, B. Elan and Harry van der Hulst

Dresher, B. Elan and Aditi Lahiri

Franck, Johannes

Gysseling, Maurits

Halle, Morris and Samuel J. Keyser

Hanson, Kristin and Paul Kiparsky

Hayes, Bruce

Hock, Hans Heinrich

Hogg, Richard M.

Hulst, Harry van der

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Kiparsky, Paul and Gilbert Youmans (eds.)

Kloek, van Lessen W. U. S.

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Lahiri, Aditi and B. Elan Dresher

Lahiri, Aditi and Paula Fikkert

Lahiri, Aditi and Jacques Koreman

Lahiri, Aditi, Tomas Riad and Heike Jacobs

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Le Roux, Thomas H. and Jacobus J. Le Roux

Luick, Karl

Meer, M. J. van der
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Schönfeld, Moritz  

Trommelen, Mieke and Wim Zonneveld  


Veerdegem, François van  

Vries, Jan de  

Wijk, Nicolaas van  

Zonneveld, Wim  

1993a 700 jaar Nederlandse klemtoon (en weinig veranderd). *Spektator* 22.
