Prosodic variation in 'Lutgart'

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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 evidence 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 German (OHG)	Middle High German (MHG)	Modern German
		Middle Dutch (MNL)	Modern Dutch

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 spelling, 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 *overbrúggen* '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 Dresher 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 *zungún* ('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 *-loos/-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

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

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'¹ 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 Veerdeghe 1899, Knuvelde 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, 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 v́ met wáren wárdén

00002 En déel der uíten uán lutgárdén

00003 Uerclárt gi héren énde vrówen

00004 Daer íc in mí te góeder trówen

- 00005 Gepínet hébbe al sónder wánc
 00006 Tehóudene ál den séluen gánc
 00007 Jn dídsche. ende ín den séluen wégen
 00008 Te gáne. díe ic vánt geslégen
 00009 Jn dín latíne uóre mí.

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 léidde hebdí gehóet
 00061 Die lóegene hóren óuer wáer
 00123 Na háren wésene háre wérke
 00144 Want álse hi héft geségt al út
 00248 Dies dóchte hen állen wél geuóege
 00391 Al clágende hébdi dís uerlíjt
 b. 00169 Ende nít onthóuden dát men séit
 04544 Ende dáer dat sácramént ontfínc
 04001 Dat gí uwes sínne wórdt so uróet
 00275-3² Jnt héilege lánt van óuer zée
 c.³ 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 uolléuede⁴ in gróten éeren
 00598 Die mét gepróeueder héresien

- b. 00170 Dat és uerlóren **ár**é**it**
 02372 **Síin** orcónde was dáer te cránc
 05453 **Dáer** si sére in wás verwérret

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): *viant* 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 vándt din víant wél so kóene
 12197 Dats díe viánt die félle ghír
 13551 Dat gí die pláche dínt 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 Túschen den uíant énde háre
 02815 Állen sondéren bést teurómen
 03024 Cóenlic uerméten díś dat sí
 11765 Brúder damáes van béllengém
 12516 Kóninc philíps van vránkeríke
 01451-3 Wáren si pápen óchte clérke
 02672-3 Vrówen sybílíen óc verlíjt
 b. 01131 Met slágen gróet sónder getál
 04517 Die bát óuer die urówe góet
 09698 Die sí óuer die nónne 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*, *Davíd*. In trisyllabic words it is difficult to decide whether main stress is final or initial: *Názaréth*, *Bétlehém*,

Gá briél. 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*, *latijn*, *abíjt*, *paradíjs*, *dignitéit*.
- d. Words ending in VCC also have final stress: *convént*, *prosént*. In trisyllabic words it is most likely also final: *árgumént*, *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 *lichame*, *antwerde*, *ambacht*, *bisschop*, *bispiel*, 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

- a. 00709 Mettín **ijonfrówen** ínt geuóch
 03758 Gewárech gnóch **littéecken** gáf
 10894 Dat cláre **ansichte** ván der vrówen
 02224 Gereecht **vonnésse** wért gegéven
 01034 Die séide góds **urindínne** máer
 14422 Van dín **ambáchte** ende hóe si dínge
 02552 Die díe **uiánde** méest ontréden
- b. 01814–3 Dat **ámbacht** dáttén wéder déinsen
 04060 Dat sál v **ámbacht** wésen dáer
 00255–3 Droch hí dat **ámbacht** ván meestrien
 02129 Dit **bíspel** dát ic ´v uertrác
 02133 Daer íc dat **bíspel** áve lás
 01495 En **órconscáp** dat hórt te háre
 02148 Din **uíant** quáet. din bósen ghír
 07099 Die **viánt** díe se wílde véllen
- c. 07970 Wrachte hár **ambácht** die gódes mínne
 0676–3 Heft dánt **thomás** die prédekáre
 0548–3 Want díe **uíánt** fel énde quáet
 12197 Dats díe **viánt** die félle ghír
 0323–3 Óude ende ijónge **orlóf** genómen
- d. 13397 Bi désen **bíspele** és verclárt
 0412–3 Die állen **órconden** dát gi mí
 14283 Si bát vor **cóninge** énde gráuen
 04235 Wat **uónessén** es ´v gegéuen

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) Variation in prosodic forms

	Form	Expected structure	Attested structure
a.	HH	(H)(<u>H</u>)	(H)(<u>H</u>) and (H)(H)
b.	HHL	(H)(HL)	(H)(HL) and sometimes (H)(HL)
c.	HLL	(HL)L	(H)(LL) and sometimes (HL)L

- (15) a. ambacht, torment, āuont, blīschap, bernart, bischop, vīant,
mesdaet, ōrlōf, anschi(j)n, bīspel, kerkhof
b. abdesse, ambachte, erminge, ermoede, kinnesse, uonnesse
c. líc-hàme, 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 díe **uíánde** méest ontrédén
02547 Jégen die crácht_uan dín **uíánde**
14422 Van dín **ambáchte**_ende_hóe si dínge
00439 Met bésechhéiden uán **ambáchte**
03758-3 Gewárech gnóch **littéeken** gáf
02918 Al nóch **orcónden** uán lutgáden
00249-3 Die ábsoluéerde mét **orlóue**

- 00157 Daer tóe bekíren. díe **bispéle**
 10894 Dat cláre **ansichte** ván der vrówen
 01655-3 Dat mí **tongóede** al wárt dat léuen
 02224 Gerecht **uonnésse** wérdt gegéuen
 01034 Die séide góds **urindínne** máer
 08954 Dat hí **eerlíker** énde bát
 12139 Nit áf en móchte díe **schonhéide**
 11924 Die uán **menschéiden** dróch figúre
 12079 Te hórne wás. dat ván **blischápen**
 04716 Die dóet **ghaelíng** es óuer cómen
 05398 Die óns **ermíngen** díe noch léuen
 05487 Was díe **woníng** uán hen béeden
 b. 13979 Te **bíspele**, óuden énde ijóngen
 13998 Scriftúren. **bíspele**. énde wórt
 04235 Wat **uónnessen** es 'v gegéuen
 00412-3 Die állen **órconden** dát gi mí
 02372 Siin **órcondé** was dáer te cránc

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. Drescher and van der Hulst 1993, 1995, 1998; Lahiri and Drescher 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 sál v **ámbacht** wésen dáer
           00255-3   Droch hí dat **ámbacht** ván meestríen
           11507   Die **ámbacht** hádden dáer gedrégen
           02148   Din **uíant** quáet. din bósen ghír
           07099   Die **uíant** díe se wílde uéllen
           13548   Hi víndt din **víant** wél so kóene
           02129   Dat **bíspel** dát ic ´v uertrác
           02133   Daer íc dat **bíspel** áue lás
           01619-3   Her **bérnart** hére 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 **schónheit** wás uerlóren
           01426   Hir áf die **wárheit** ónderuónden
           07641   Dat és die **dóefheit** quáderhánde
           07760   Van hárre **dóefheit** díe si suár
           01071-3   Van dérre **wérschap** óp den dách
           03348   Dar wás die **blíschap** hárde gróet
       b. 13551   Dat gí die pláche dínt **viánt**
           13127   Hare ógen. wánt die **viánt**
           03361   Dat díe **uíant** hare áne léide
           01053-3   Was dís **ambáchts** aldáer geplón
           05098-3   Dats míjn **ambácht** in hémelríke

- 00323-3 Óude ende ijónge **orlóf** genómen
 08405 Met stáden dín **orlóf** genómen
 00245-3 Want ábsolútie énde **affláet**
 01498-3 Die brúder wás endē hīt **bernárt**

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'

	'σσ	σ'σ	σ'σə	'σ'σ
<i>Monomorphemic</i>				
ambacht	14	12 (5)	17	—
bernart	1	2 (2)	—	—
bis(s)chop	1	2 (2)	1 ⁵	—
ijacop/b	3	1 (1)	—	—
v/uīant	75	36 (25)	11 (9)	1 (1)
ihesus	24	2 (1)	—	—
brabant	2	10 (8)	—	—
convent	—	28 (19)	11 (3)	—
thomas		4 (2)	—	—
abijt		15 (11)	1	—
ada(e)m		4	4	—
alart		1	—	—
<i>Prefixed words</i>				
mesdaet	1	2 (2)	10 (8)	—
örlōf	12	9 (3) ⁶	3 (2)	—
anschi(j)n	8	10 (9)	—	—
bispel	28	4 (2)	2 (2) ⁷	3
angaen ⁸		1	—	—
onrecht		1	3 ⁹	—
mesdaen/doen		10 (8)	—	—
af(f)laet		10	—	—
afhonst		1	—	—

(19) (*cont.*)

	'σσ	σ'σ	σ'σə	'σ'σ
<i>Compounds</i>				
kerkhof	2	1 (1)	—	—
<i>Suffixed words</i>				
bodsc(h)ap ¹⁰	3		—	—
warheit	2		2 (2)	—
blīscap	14		1 (1)	—
doefheit	3		—	—
u/vrīheit	13		1 (1)	—
schuldech	18		—	—

Numbers in parentheses indicate how many instances occur in line-final position.

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 Behóert noch ín **tormént** tesíne
 02601–3 Noch dáer en és **tormént** noch píne
 02773 Nutt één **pulmént** met úwen bróede
 00654–3 Dan één **pulmént** met bróde alléne
 09160 Die hém **consént** uan herten géuet
 13277 Hadde hí uan herten dín **consént**
 02828 Do wás gespróken dít **sermóen**
 00244–3 Daer hí **sermóen** ten uólke déde
 01475 So quám hi gáende in dát **parlóer**
 05758 Ende ínt **parlóer** en téken máket
 00232–3 Genámt was hí brúder **jordáen**
 00321–3 Brúder **jordáen** die iácopjñ

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_{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 *ermínc* ('poor one'), as shown in (21b):

- (21) a. 03505   Séerlic mesbáerende útermáten
           02616   Círlic gecrónet útermáten
           05041–3 Quálic genóemen. bínnen schéen
           03024   Cóenlic uerméten díś dat sí
           06010   Ēerlic uan góde wárt ontfáen
       b. 05623   Dat íc **ermínc** ende íc kaitíjf
           08369   Mar íc **ermínc** 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 monomorphemic 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 be 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 monomorphemic 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. $[(\acute{N})_{\text{wd}}(\acute{N})_{\text{wd}}]_{\text{Compound}}$
       b. $[(\acute{N})_{\text{wd}} \text{ suffix}]_{\text{wd}}$

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)lâet*, *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).

(23) LH(L) words

LHL	'σσ	σ'σ	'σσə	σ'σə
c/köringen	—	—	14	—
c/köninc	84	—	1	—
běsech	15	—	—	—
měnech	all	—	many	—
sálech	8	—	7	—
mōnek	1	—	5	—

- (24) 10836 Die **cóninc** uán din páradíse
 03819–3 Conuéeers noch **mónek** hém en dóchte
 01438–3 Si dóedden **móneke** énde nónnen
 09203 Met **córíngen** suar 'vtermáten
 14283 Si bát vor **cóninge** énde gráuen
 01696 Daer sí uan **ménegerhánde** wíse
 00470–3 Sijn méttén **sálegen** ínt getál

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*

([L H]) ([L H] L) (H) (H) (H) (H L)
 co nin c co nin ge er ming er min ge

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/ē*, which qualitatively differ. 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 *vīant-vīande*, 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
(ám)(bacht)	(am)(bácht)	(am)(báchte)	
(vī)(ant)	(vī)(ánt)	(vī)(ánde)	(vī)(ande)

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 endings¹² 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	
dóctör	doktören	'doctor'
proféssör	professören	'professor'
démön	demönen	'demon'
elektrön	elektrönen	'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. *vijándig* and *ámacht* vs. *ambáchtelijk*. 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 *sincēre*–*sincērity*.

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)

Old English		ME 1: CEM	ME 2: TSS	Examples
(a)	(H) (H) (<u>H</u>) (H) (HL)		([LH]L)	*hēringes > heringes
(b)	(H) (HL) –		([LH]L)	*lāverke > laverke
(c)	(HL) (<u>H</u>) (HL) L		([LL]L)	*cīcenes > cicenes
(d)	(HL) L –		([LL]L)	*clāvere > clavere

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 were 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):¹³

(29) English	'Lutgart'	Modern Dutch
Látin	latíjn, latíne	latíjn
prócess	procés	procés
príson	prisóene	
páradise	páradíjs	paradíjs
médicine	médicíne	medicíjn
víision	uísión	visiöen

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 OS� 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 OS� 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.

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Notes

1. Aside from the manuscript that is kept in Copenhagen and originates in Brabant, there also exists another adaptation of the 'vita piaie 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 'synaloeft' also occurs with *uwe* (which can thus be mono- or disyllabic) plus any word (cf. Zonneveld 1992, 1993a, 1998):

	00301	Vwē	grácie	díe	mí	só	beuérde
	11305	Jc	bén	vwē	pórtie	énde	v schát
versus	01795	Ende	díe	mí	'vwe	wónden	gróet
	00361	Ende	'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):

werelt	< OS wērold, OE weorold
maget	< OHG magad, OS magath
dochter	< OS dohtar, OE dohtor
hemel	< OHG/OS himil
meester	< OHG meistar, OS mēstar

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.

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