On Two Half-Line Types in Sievers's Theory of Old English Meter:
A Case for Clash Deletion on the Second Metrical Plane in Old English
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1. Introduction

The well-formedness of half-lines in Old English (henceforth, OE) alliterative verse has been a central topic in Germanic metries since the 19th century. Traditional metries, as represented by Sievers's (1893) theory of meter, argues that the rhythm produced by the distribution of stress is a dominant factor for determining the occurrence of half-lines. By contrast, generative metries, as represented by Halle and Keyser's (1971) theory of meter, argues that alliteration plays a dominant role in determining the occurrence of half-lines. Recently, new comprehensive theories have been constructed in both the traditional and the generative-phonological framework. Included in the former are Creed (1990) and Hutcheson (1995), among others. Included in the latter are Russom (1987, 1998) and Fujiwara (1990), among others.

Given these two main streams of OE metries, I argued in Okazaki (1998) that the well-formedness of half-lines is also determined by the disposition of syllables on the basis of the distribution of quadsyllabic half-lines containing two unprefixed disyllabic words. Assuming that OE is a syllabic language which, in addition to the stress plane, has another metrical plane, called the second metrical plane, I proposed two devices to explain the well-formedness of half-lines. One is a constraint, called the Minimal Half-Line Constraint (MHLC), which requires that half-lines of OE alliterative verse contain at least three feet on the second metrical plane. The other is a clash deletion rule operative on the second metrical plane which requires that a degenerate foot preceded by a binary foot and followed by another degenerate foot be deleted.

In this paper, I will be engaged in the task of illustrating the validity of the MHLC and the clash deletion rule by examining properties of two half-line types in Sievers's theory of OE meter. In particular, after reviewing Okazaki's (1998) proposal in section 2, I will suggest in section 3 that the two devices make certain predictions about the occurrence and nonoccurrence of half-lines containing the word-types as schematized in (1).

   (1) a. [word HLXX]  b. [word LXX]  c. [word LXH]
     H=heavy syllable (C,VC), L=light syllable (CV), X=heavy or light syllable (V=long vowel and diphthong; V=short vowel)
(1a) and (1b) are expected to show a sharp contrast with each other. The former occurs as a single half-line (TYPE D in Sievers's theory), but the latter does not. (1c) is also expected to exhibit peculiar metrical behavior. It occurs in quadsyllabic

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half-lines identified as Sievers's TYPE D half-lines and does not in quadrisyllabic
half-lines identified as his TYPE E half-lines. Given these factual predictions, I will
demonstrate in sections 4 and 5 that the predictions are borne out on the basis of a
survey of the distribution of the words schematized in (1) in Krapp and Dobbie's
Anglo-Saxon Poetic Records (henceforth, ASPR). The facts are elegantly captured by
the MHLC and the clash deletion rule. In fact, the clash deletion rule is argued to be
indispensable for explaining the peculiar distribution of the word-types in (1). In
section 6, I will provide an explanation for exceptional cases. Finally, in section 7, I
will be concerned with a critical review of dominant previous studies on OE meter and
show that they cannot capture the peculiar distribution of the word-types in (1).


2.1. Backgrounds

Okazaki (1998) assumes that phonological structure consists of a set of planes, as
shown in (2) (cf. Sagey (1986)) and that metrical structure consists of layers of metrical
 grids, which are represented by asterisks, and of constituents, which are represented by
parentheses, as shown in (3) (cf. Halle and Vergnaud (1987)).

(2) \[
\begin{array}{ccc}
X & X & X & X & X
\end{array}
\]

(3) \[
\begin{array}{ccc}
* & * & * & * & * \\
\sigma & \sigma & \sigma & \sigma \\
\end{array}
\]

X = segmental skeleton
\sigma = syllable

On these two theoretical assumptions, Okazaki (1998) further assumes, following
Keyser and O’Neil (1985), that OE is a syllabic language with two metrical planes, one
for stress, called the stress plane, which is irrelevant here, and the other for other
phonological phenomena, called the second metrical plane, which is crucially relevant
here. Metrical constituents on the second metrical plane are constructed by the
following algorithm, which was originally proposed by Keyser and O’Neil (1985:4) and
is restated in Halle and Vergnaud’s (1987) terms without distorting its essence.

(4) a. Assign a line 1 asterisk to heavy syllables.

b. On line 1, construct right-headed quantity sensitive binary constituents
from left to right.

Okazaki (1998) also adds a proviso which regulates metrical structure
construction at the postlexical level, for half-lines of OE alliterative verse mostly
contain more than one word. The proviso is formulated as in (5).
(5) The metrical structure on the second metrical plane is constructed in such a way that the boundaries of a metrical constituent do not cross a word boundary.

Finally, Okazaki (1998) assumes that syllable division in OE obeys Clements and Keyser's (1983:37) Onset First Principle, which requires that a cluster of consonants which occurs as an onset consonant cluster of monosyllabic monomorphemic words be licensed as an onset consonant cluster of a syllable and incorporated into the syllable before the incorporation of coda consonants.

2.2. The Minimal Half-Line Constraint

Given the above-mentioned assumptions and devices, Okazaki (1998) proposes a language-specific constraint on the well-formedness of half-lines of OE alliterative verse, called the Minimal Half-Line Constraint (henceforth, MHLC). It is formulated as in (6).

(6) Minimal Half-Line Constraint (MHLC)

Half-lines of OE alliterative verse must contain at least three feet on the second metrical plane.

This constraint is formulated on the basis of the distributional contrast between half-line type (7a) and half-line types (7b) and (7c).

(7) a. \([\text{word} \, \text{HX}][\text{word} \, \text{LX}]\)  b. \([\ast \text{word} \, \text{LX}][\text{word} \, \text{HX}]\)  c. \([\ast \text{word} \, \text{LX}][\ast \text{word} \, \text{LX}]\)

Half-line type (7a) often occurs in OE alliterative verse. Typical examples are:

(8) a. arlēas cyning ‘the cruel king’ (Juliana 4a)
   b. Frōbearn Godes ‘God’s noble child’ (Genesis A 289a)
   c. gealgmōd guma ‘the cruel man’ (Genesis A 531a)
   d. guðrinc monig ‘many heroes’ (Beowulf 838b)
   e. mihtmōd wera ‘violent men’ (Exodus 149a)

Half-line types (7b) and (7c) are seen to be ill-formed. They rarely occur in OE alliterative verse. Their rarity is confirmed by the fact that only 14 examples of (7b) and (7c) are found among the 4102 relevant half-lines that Okazaki (1998) examines. Their frequency of occurrence is about 0.3%.

The sharp distributional contrast between (7a) and (7b, c) follows from the MHLC. Half-line type (7a), as shown in (9), contains three feet on the second metrical plane in accordance with the algorithm in (4) and the proviso in (5).

(9) \(* \ast \ast \ast \)
   \([\ast \text{word} \, \text{H} \, \text{X}][\ast \text{word} \, \text{L} \, \text{X}]\)

Thus, half-line type (7a) is licensed as well-formed and occurs frequently.

Half-line type (7b) prima facie contains three feet, as shown in (10), and is
expected to be well-formed. In fact, however, it is seen to be ill-formed.

(10) * * * (* *) (*) (*)
    [WORD LX] [WORD H X]

Characteristic of the metrical structure in (10) is the fact that the three heads are adjacent to each other. In particular, the second foot receives pressure from both the preceding binary foot and the following degenerate foot. Okazaki (1998) then argues that it is not unreasonable to postulate a language-specific clash deletion rule such as (11) which deletes the second foot in the metrical configuration in (10).

(11) Clash Deletion
    *→ / . * ___ *
    (* *)(*)(*)

As shown in (12), application of rule (11) renders half-line type (7b) two-footed. Two-foot half-lines are excluded by the MHLC, which requires that there be at least three feet in half-lines. That is why half-line type (7b) rarely occurs.

(12) * * * * * . *
    (* *) (**) (11) (**) *(*)
    [WORD LX] [WORD HX] → [WORD LX] [WORD HX]

The ill-formedness of half-line type (7c) follows straightforwardly from the MHLC. The half-line type, as shown in (13), contains only two feet on the second metrical plane. Again, two-foot half-lines are prohibited from occurring by the MHLC. Thus, the type is naturally ill-formed.

(13) . * *
    (* *) (* *)
    [WORD LX] [WORD LX]

2.3. Evidence for the MHLC

The MHLC has at least three other pieces of evidence. The first piece of evidence is the fact that no disyllabic half-lines occur in OE alliterative verse. In generative metrics, the lack of disyllabic half-lines is seen as a mere accident. Okazaki (1998) argues, however, that the fact follows directly from the MHLC.

Disyllabic half-lines, as illustrated in (14), would contain a single foot or two, depending on whether they contain a word or two.

(14) a. * b. * * c. * * d. * *
    (***) (*) (*) (**) (*) (*)
    [WORD LL] [WORD L][WORD L] [WORD LH] [WORD L][WORD H]
The MHLC requires that half-lines contain at least three feet on the second metrical plane. Thus, disyllabic half-lines are excluded as ill-formed in OE alliterative verse.

The second piece of evidence for the MHLC comes from the fact that trisyllabic half-lines containing a monosyllabic word and an unprefixed disyllabic word headed by a light syllable do not occur in OE alliterative verse. The relevant half-line types are schematized in (15).

(15) a. [word X][word LX] b. [word LX][word X]

In generative metrics, the lack of half-lines such as those in (15) is also seen as a mere accident. Okazaki (1998) argues, however, that the fact also follows from the MHLC.

The half-lines schematized in (15), as illustrated in (16), contain only two feet on the second metrical plane, regardless of the weight of the syllable ‘X.’


[word X][word LX] [word LX][word X]

Recall again that the MHLC requires that there be at least three feet in half-lines. Thus, the half-line types in (15) are naturally ill-formed and do not occur.

The final piece of evidence for the MHLC involves the fact that trisyllabic half-lines like those in (17) actually occur in OE alliterative verse.

(17) a. [word HX][word X] b. [word X][word HX] c. [word X][word X][word X]

Typical examples of the half-line types in (17a-c) are given in (18)-(20).

(18) a. Ξέces twa ‘two of each’ (Genesis A 1338b)

b. òðer Charm ‘the second (is) Charm’ (Genesis A 1241b)

(19) a. nēan bīdan ‘wait for (Grendel)’ (Christ and Satan 528b)

b. secg betsta ‘the best man’ (Beowulf 947b/1759b)

(20) a. hāt in gēn ‘bid (them) come in’ (Christ and Satan 386b)

b. on flet téon ‘lead into the floor’ (Beowulf 1036b)

These half-lines have been seen as puzzling in traditional metrics. Since the framework is constructed on the assumption that canonical half-lines in OE alliterative verse contain four metrical positions, they are expected to be unattested. They contain only three metrical positions. Actually, however, they often occur. Given the MHLC, their occurrence ceases to be a puzzle and is explained in a straightforward manner.

The half-lines in (18)-(20), as illustrated in (21), contain three feet on the second metrical plane, in accordance with the algorithm in (4) and the proviso in (5).
Thus, the half-line types in (17) are licensed as well-formed and actually occur.

3. Sievers's Two Half-Line Types and an Issue to be Resolved

3.1. Setting a Problem

In the preceding section, I have reviewed Okazaki's (1998) proposal and adduced some pieces of evidence for the MHLC. However, I have not adduced any piece of evidence for Clash Deletion (11). Without further pieces of evidence, the rule would be ad hoc. It must be shown to be applicable to explanations for the distribution of a wide range of half-lines. In particular, we must examine whether or not it works in deciding the well-formedness of half-line types other than (7b, c).

3.2. Sievers's Type D and Type E Half-Lines

Sievers (1893), hypothesizing that half-lines of Old Germanic alliterative verse canonically contain fourmetrical positions, aims at classifying half-line types of OE alliterative verse and argues that basic types of its half-lines are classified into five types. Among the five types, I selected Type D and Type E half-lines as bases for examining the validity of Clash Deletion (11). The two half-line types are schematized as in (22).

(22) a. TYPE D: $S|S$W $W$W

S=strong; $W$=weak; $|$=foot boundary in Sievers's sense

Conditions: (i) $S$ corresponds either to primary word stress or to primary stress of a subordinate element in compounds.

(ii) The foot boundary corresponds to either a word boundary or a constituent boundary in compounds.

(iii) One of the two $W$ syllables bears secondary word stress.

Typical examples of TYPE D and TYPE E half-lines are given in (23) and (24), respectively.
(23) a. mæg ælftæno 'a beautiful (kins)woman' (Genesis A 1827a)
    b. mæw singende 'a seagull singing' (Seafarer 22a)
    c. wearp wælfyrē ‘threw out the murderous fire’ (Beowulf 2582a)

(24) a. ensisone helm ‘the giant’s lord’ (Beowulf 2979b)
    b. hēalrūna mǣst ‘most of the hall buildings’ (Beowulf 78a)
    c. Pancolmōd wer ‘the wise man’ (Genesis A 1705a)

3.3. Predictions about the Distribution of TYPE D and TYPE E Half-Lines

Clash Deletion (11) makes some specific predictions about the distribution of Sievers's TYPE D and TYPE E half-lines. The first prediction that the rule makes is as follows. The word-type in (25) (word-type (1a)), which mostly corresponds to an inflected form of a trisyllabic compound headed by a monosyllabic word, occurs as a single half-line identified as TYPE D. By contrast, the word-type in (26) (word type (1b)), which corresponds to either a citation form of a quadrisyllabic compound consisting of two disyllabic words or an inflected form of a trisyllabic compound headed by a disyllabic word, does not occur as a single half-line identified as TYPE D.

(25) \text{[word] HLXX} (\equiv (1a))

(26) \text{[word] LXHX} (\equiv (1b))

The algorithm in (4) and the proviso in (5) produce metrical structures for (25) and (26) in (27) and (28), respectively.

(27) \text{[word] H LX X}

(28) \text{[word] LX H X}

The metrical structure in (27) does not meet the structural description of rule (11) and contains three feet on the second metrical plane. Thus, the word-type in (25) is expected to constitute a single half-line in OE alliterative verse. The metrical structure in (28) by contrast meets the structural description of rule (11) and, as shown in (29), is transformed into a two-foot structure, which the MHLC prohibits from occurring.

(29) \text{[word] LX H X} \rightarrow \text{[word] LXH X}

It is predicted that the word-type in (26) does not constitute a single half-line.

Another prediction Clash Deletion (11) makes is that the word-type in (30) (word-type (1c)) occur in quadrisyllabic half-lines identified as TYPE D but not in those identified as TYPE E.

(30) \text{[word] LXX} (\equiv (1c))

In particular, the word-type in (30) is expected to occur in half-lines schematized as (31) but not in those schematized as (32).

(31) \text{[word] X}[\text{word] LXX} \text{(TYPE D)}

(32) \text{*[word] LXX}[\text{word] X} \text{(TYPE E)}
The occurrence of (31) and the nonoccurrence of (32) are also predicted by the application and the nonapplication of Clash Deletion (11). As shown in (33), the half-line type in (31) does not meet the structural description of the rule and contain three feet on the second metrical plane. Thus, the half-line type obeys the MHLC and is expected to be licensed as well-formed.

\[
(33) \quad * \quad . \quad * \quad * \\
\begin{align*}
(* & ) \\
\text{[word } X \text{]} \quad \text{[word } LX X \text{]} 
\end{align*}
\]

By contrast, the half-line type in (32), as illustrated in (34), meets the structural description of the rule and is transformed into a two-foot half-line.

\[
(34) \quad . \quad * \quad * \quad . \quad * \\
\begin{align*}
(** & )(*) \quad (11) \quad (** & ) \quad (* & ) \\
\text{[word } LX X \text{]} \quad \text{[word } X \text{]} \rightarrow \text{[word } LXX \text{]} \quad \text{[word } X \text{]} 
\end{align*}
\]

Thus, the half-line type does not obey the MHLC, which requires that there be at least three feet in half-lines, and is expected to be excluded as an ill-formed half-line type.

3.4. The Issue

In this section, I have pointed out that rule (11) makes two specific predictions about the occurrence and the nonoccurrence of subtypes of Sievers's TYPE D and TYPE E half-lines. The issue to be resolved is therefore whether or not the two predictions that rule (11) makes are borne out on empirical grounds. In the following two sections, I will be engaged in the task of indicating that the predictions are correct.

4. The Distribution of Quadrisyllabic Words in the ASPR

In this section, I will examine the distribution of quadrisyllabic words like those listed in (25) and (26), repeated as (35) and (36) below, in the ASPR.

\[
(35) \quad \text{[word } HLXX \text{]} \\
(36) \quad \text{[word } LXHX \text{]} 
\]

The prediction that Clash Deletion (11) makes about (35) and (36) is that the former occurs as a single half-line, whereas the latter does not occur as a single half-line. This prediction is in fact borne out.

The occurrence of the half-line type in (35) is exemplified by the half-lines in (37).

\[
(37) \quad \begin{align*}
a & . \quad \text{andswarde} \quad (\text{He}) \quad \text{answered} \quad (\text{Genesis } A \ 872a) \\
b & . \quad \text{mismicelra} \quad \text{of varying sizes} \quad (\text{Exodus } 373a) \\
c & . \quad \text{reordberendum} \quad \text{of the men} \quad (\text{Dream of the Rood } 89b) \\
d & . \quad \text{Þeodceninga} \quad \text{kings} \quad (\text{Beowulf } \ 2a) \\
e & . \quad \text{Þeodcyninges} \quad \text{the king's} \quad (\text{Beowulf } \ 1155b)
\end{align*}
\]

Half-lines like those in (37) occur so often that they cannot be seen as irregular.
The rarity of the half-line type in (36) is confirmed by two facts. One is that quadrisyllabic words of the type in (36) often occur in pentasyllabic half-lines such as (38) and (39), which retain three feet on the second metrical plane even through the application of Clash Deletion (11).

(38) \[ \text{(*)} \hspace{1em} \text{(**)(**)(**)(11)(**)(**)(**)} \]
\[ [\text{word X}][\text{word LX H X}] \rightarrow [\text{word X}][\text{word LXHX X}] \]

(39) \[ \text{(**)(**)(**)(**)(11)(**)(**)(**)(**)(**)} \]
\[ [\text{word LX H X}][\text{word X}] \rightarrow [\text{word LXHX}][\text{word X}] \]

Typical examples of (38) and (39) are given in (40) and (41), respectively.

(40) a. \text{frōd, felagēsomor ‘wise, sorrowful’ (Beowulf 2950a)}
   b. \text{hæft hygegīsomor ‘the slave who is sad in mind’ (Beowulf 2408a)}
   c. \text{hrim heorugrimma ‘the fierce rime ice’ (Riddle 40 55a)}

(41) a. \text{bealoblonděn nyþ ‘the pernicious abyss’ (Maxims I 196a)}
   b. \text{legerbedde fæst ‘the fixed grave’ (Beowulf 1007b/Guthlac B 1032b)}
   c. \text{nearocreþfum fæst ‘the firm skill in enclosing’ (Beowulf 2243b)}

A second fact which exemplifies the rarity of half-lines of the type in (36) comes from a statistical survey of the distribution of word type (36) in the ASPR. I examined the distribution of the words in (42), which, listed in alphabetical order, include quadrisyllabic compounds and quadrisyllabic inflected forms of trisyllabic compounds, in the ASPR. In particular, I examined whether or not the words in (42) constitute a single half-line in the ASPR.

(42) a. \text{æþ̄længla (gen pl of æþ̄længol ‘noble star’)}
   b. \text{balocraeftum (dat pl of balocræft ‘magic art’), beaducēfa (nom/acc pl fem of beaducēf ‘bald in battle’), beaducēftig ‘warlike’, beadumægnes (gen sg of beadumægen ‘battlestrength’), beadurincum (dat pl of beadurinc ‘warrior’), beadurōfe (acc sg fem of beadurōf ‘strong in battle’), beadorōfe (=beadurōfe, beadurōfes (gen sg masc/neut of beadurōf), beadurōfne (acc sg masc of beadurōf), beadurōfere (gen/dat sg fem of beadurōf), beadurūne (dat sg of beadurūn ‘secret of quarrel’), beadusercean (nom/acc pl of beaduserce ‘coat of mail’ (weak declension), beaduþþæhta (gen pl of beaduþþæht ‘army’), beaduwange (dat sg of beaduwang ‘battle field’), beaduweorca (gen pl of beaduweor ‘warlike operation’), beadoweorca (=beaduweorca), bealoblonden ‘pernicious’, bealodeðe (dat sg of bealodeð ‘evil deed’), bealubenne (dat sg of bealubenn ‘mortal wound’), bealuclomnum (dat pl of}
bealuctomm ‘oppressive bond’), bealohydig ‘mediating mischief’, bealonrië (dat sg of bealonrië ‘wickedness’), bealosorge (dat sg of bealosorg ‘dire sorrow’), bealophancum (dat pl of bealophanc ‘evil thought’), bealonrië (gen pl of bealonrië (=bealonid)), bealanrië (dat pl of bealanrië (=bealonrië)), bealorohum (dat pl of bealorohum ‘oppressive fetter’), bregorïcas (nom/acc pl of bregorïce ‘kingdom’), bryrehëtre (gen/dat sg fem of bryrehëtre ‘burning’)

c. durphëgnum (dat pl of durphëgn ‘door keeper’)
d. ealogaië (gen pl of ealogaië ‘drunk with ale’), ealowëge ‘ale-flagon’, ealuwëge (=ealowëge), eofolcumbul ‘helmet’, eofolcumble (dat sg of eofolcumbul), efenmidre (dat sg fem of efenmid ‘middle’), efenpynde (dat sg of efenpynd ‘calm lake’), efenstcarpe (acc sg fem of efenstcarpe ‘equally sharp’)

e. fægerwyrdre ‘smooth speaking’, faroðstræte (dat sg of faroðstræte ‘path of the sea’), felagomor ‘very sad’, felegeongre (gen/dat sg fem of felegeong ‘very young’), fealohtë (inst masc/neut sg of fealohtë ‘yellow-hilted’), felaloðan (nom/acc pl of felaloða ‘very dear’), fugoltimber ‘young bird’
f. gearobrygda (gen pl of gearobrygda ‘quick movement’), gearosnottor ‘very skillful’, gearowyrdig ‘ready of speech’, gearowyrdig (=gearowyrdig), geogudënsle (dat sg of geogudënsle ‘young offspring’), geogudëmyrdre (dat sg of geogudëmyrd ‘joy of youth’), gryrehwële (dat sg of gryrehwële ‘terrible time’)

g. hagulsçuras (nom/acc pl of hagulsçur ‘hail shower’), hagolsçurum (dat pl of hagolsçur (=hagulsçur)), hægelsçurum (dat pl of hægelsçur (=hagulsçur)), heolophelme (dat sg of heolophelme ‘helmet which makes the warrior invisible’), healoðbyrne ‘war corslet’, healoðbyman (nom/acc pl of healoðbyrne ‘weak declension’), healoðgrimme (acc sg masc of healoðgrim ‘fierce’ (=healoðgrim)), healoðlace (dat sg of healoðlace ‘battle’), healoðlace (=healoðlace), healoðlaces (gen sg of healoðlaces (=healoðlaces)), healoðumære ‘famed in battle’, healoðræsa (gen pl of healoðræsa ‘attack’), healoðræsas (nom/acc pl of healoðræs), healoðrinca (gen pl of healoðrinca ‘warrior’), healoðrinces (nom acc pl of healoðrinces), healoðræfe (acc sg fem of healoðræfe ‘famed in battle’), healoðræfe (=healoðræfe), healoðræfes (gen sg masc/neut of healoðræfe), healoðsceard ‘dinted in war’), healoðswenge (dat sg of healoðsweng ‘battle stroke’), healoðwælma (gen pl of healoðwælm
‘fierce flame’), headōwepen ‘weapon of war’, headōwepum (dat pl of headōwepen), headuwerigian (nom/acc pl of headuwerig ‘weary from fighting’ (weak declension)), heofonbīman (nom/acc pl of heofonbīmana ‘heavenly trumpet’ (weak declension)), heofoncandel ‘sun’, heofonhālig ‘holy and heavenly’, heofonhāmas (nom/acc of heofonhām ‘heavenly home’), heofonhāume (dat sg of heofonhām), heofenhāme (dat sg of heofenhāme (=heofenhām)), heofonhlīfe (dat sg of heofonhlīf ‘bread of heaven’), heofunhrōfe (dat sg of heofunhrōf ‘vault of heaven’), heofonhwearfe (dat sg of heofonhwearf ‘vault of heaven’), heofonleothte (dat sg of heofonleoth ‘heavenly light’), heofonmægnes (gen sg of heofonmægen ‘heavenly force’), heofonrīce ‘kingdom of heaven’, heofonrīces (gen sg of heofonrīce), heofenrīce (=heofonrīce), heofenrīces (=heofonrīces), heofonsettle (dat sg of heofonsett ‘throne of heaven’), heofonstōles (gen sg of heofonstōl ‘throne of heaven’), heofontimber ‘heavenly structure’, heofontorhtan (nom/acc pl of heofontortht ‘glorious’), heofontungol ‘heavenly luminary’, heofontungulum (dat pl of heofontungol), heofonwolcenum (dat pl of heofonwolcen ‘cloud of heaven’), heofonwōman (nom/acc pl of heofonwōma ‘terrible noise from heaven’), heofonwuldre (dat sg of heofonwuldor ‘heavenly glory’), heofonbīryme (dat sg of heofonbīrm ‘heavenly glory’), heofonweardes (gen sg of heofonweard ‘god’), heoluwēpum (dat pl of heoluwēpen ‘sword’), heirucumbul ‘standard’, heorowulfas (nom/acc pl of heorowulf ‘warrior’), heōpolind (dat sg of heōpolind ‘shield’), herebrōgan (nom/acc pl of herebrōga ‘dread of war’ (weak declension)), herebyrne ‘corslet’, herecyste (dat sg of herecyst ‘warlike band’), herehēpe (dat sg of herehēp ‘troop’), herehūpe (acc sg fem of herehūp ‘booty’), herelāfum (dat pl of herelāf ‘remains of a host’), herewīcum (dat pl of herewīc ‘dwelling camp’), hererēswan (nom/acc pl of hererēswa ‘commander’ (weak declension)), hererēfes (gen sg of hererēaf ‘war spoil’), herestrēta (gen pl of herestrēt ‘highway’), herestruṭe (dat sg of herestrōt), hereyrcan (nom/acc pl of hetesyrce ‘corslet’ (weak declension)), heretēama (gen pl of heretēam ‘plunder’), heretēame (dat sg of heretēam), heretēames (gen sg of heretēam), heretēaman (nom/acc pl of heretēam (weak declension)), heretōga ‘commander’, heretīyama ‘king’, herewēsmum (dat pl of herewēisma ‘prowess’), herewēdum (dat pl of herewēda ‘warrior’), herewēorces (gen sg of herewēorc ‘mighty work’), herewōsan (nom/acc pl of
herewōsa ‘warrior’ (weak declension), herewulfā (gen pl of herewulf ‘warrior’), hetenīða (gen pl of hetenīð ‘hostility’), hetenīðas (nom/acc pl of hetenīð), heterōfra (gen pl of heterōf ‘full of hate’), heterūne (dat sg of heterūn ‘charm which produces hate’), heteswengas (nom/acc pl of hetesweng ‘hostile blow’), hetepancum (dat pl of hetepanc ‘hostile design’), heteponca (gen pl of heteponc (=hetepanc)), higegēomor ‘sad in mind’, hyggegēomor (=higegēomor), hygelēaste (dat sg of hygelēast ‘thoughtless’), hrepercōfan (nom/acc pl of hrepercōfa ‘breast’ (weak declension)), hygceæhtig ‘wise’, hygegālan (nom/acc pl of hygegāl ‘loose’ (weak declension)), hyge rõfe (acc sg fem of hygerōf ‘stout-hearted’), higērōfe (=hygerōfe), higerōfere (gen/dat sg fem of higerōf (=hygerōf)), hygerūne (dat sg of heterūn ‘secret’), hygesnottor ‘wise’, hygesorga (gen pl of hygesorg ‘anxiety’), higesorga (=hygesorga), hygesorge (dat sg of hygesorg), hygetēonan (nom/acc pl of hygetēona ‘insult’), higetēonan (=hygetēonan), higetrēow (gen pl of higetrēow ‘fidelity’), hyg ēpancas (nom/acc pl of hyg ēpanc ‘thought’), hyg ēponcas (=hyg ēpancas), higepancum (dat pl of higepanc (=hyg ēpanc)), hyg ēponces (gen sg of hyg ēponc (=hyg ēpanc)), higeponcum (dat pl of higeponc (=hyg ēpanc), higepancol ‘wise’, higepancol (=higepancol), higeprimmum (dat pl of higeprym ‘courage’), higepryde (dat sg of higepryd ‘pride’), hiorosercean (nom/acc pl of hiorosero ‘coat of mail’(weak declension))

h. kinigwulfōr ‘king’s glory’

i. laguææhtig ‘skilled in searching’, lagulāde (dat sg of lagulād ‘sea’), lagulāde (=lagulāde), legerbedde (dat sg of legerbedd ‘grave’), laguææt (dat sg of laguææt ‘sea-path’), laguææama (gen pl of laguææam ‘ocean’), laguææama (=laguææama), laguææamas (nom/acc pl of laguææam), laguææame (dat sg of laguææam (=laguææam)), leðosyrcea (nom/acc pl of leðosyrce(e) ‘corslet’ (weak declension))

j. mægendēde (dat sg of mægendēd ‘mighty deed’), mægenhēapum (dat pl of mægenhēap ‘powerful band’), mægenheardum (dat/inst pl of mægenheard ‘very strong’), mægenrōfa (nom/acc pl fem of mægenrōf ‘powerful’), mægenspēde (dat sg of mægenspēd ‘virtue’), mægenstrengō ‘great might’, mægenstrange (=mægenstrengo), mægenstranga (gen pl of mægenstrang (=mægenstrengo)), mægenplēgnes (gen sg of mægenplēgn ‘mighty minister’), mægenþisan (nom/acc pl of mægenþise ‘force’), mægenþrehta (nom/acc pl of
mægenpræahht 'mighty host'), mægenprymma (gen pl of mægenprym 'power'), mægenprymmes (gem sg of mægenprym), mægenprymmum (dat pl of mægenprym), mægenwundrum (dat pl of mægenwundor 'striking wonder'), magoræswa 'chief', magoræswan (nom/acc pl of magoræswa), magorinc (gen pl of magorinc 'warrior'), magorincas (nom/acc pl of magorinc), magorince (dat sg of magorinc), magotimbres (gen sg of magotimber 'son'), magutimbre (dat sg of magotimber (=magotimber)), magotúdrei (dat sg of magotúdor 'offspring'), magotúdre (=magotúdrei), magopherga (gen pl of magopherg 'warrior'), magophergneas (nom/acc pl of magopherg), magopherge (dat sg of magopherg), magophergnum (dat pl of magopherg), magophergneas (=magophergneas), magophergne (=magopherge), meodugæles (gen sg masc/neut of meodugæal 'drunk'), meodoheal (dat sg of meodoheal 'mead hall'), meeduheal (=meodoheal), meoduscencum (dat pl of meoduscenc 'mead-cup'), meodosetla (gen pl of meodosetl 'mead seat'), meotudwange (dat sg of meotudwange 'battlefield'), merebâte (dat sg of merebât 'vessel'), merecîste (dat sg of merecîst 'ark'), meregrundas (nom/acc pl of meregrund 'depth of sea'), merehengest 'ship', merehûses (gen sg of merehûs 'ship'), merehwearfe (dat sg of merehwearf 'seashore'), merelâde (dat sg of merelâd 'sea-way'), merestræta (gen pl of merestræt 'sea-path'), merestræte (dat sg of merestræt), merestræma (gen pl of merestræm 'sea-water'), merestræmas (nom/acc pl of merestræm), merestræame (dat pl of merestræm), merestræames (gen sg of merestræm), merestræcum (dat pl of merestræm), merestræing 'strength in swimming', meretorihre (dat sg fem of meretorhht 'bright from the sea'), meretorris (nom/acc pl of meretorh 'towering wall of the Red Sea'), merebîssan (nom/acc pl of merebîssa 'ship' (weak declension)), merebîysan (=merebîssan), metelâaste (dat sg of metelâast 'lack of food'), metophergneas (nom/acc pl of metopherg 'steward')

k. nearocraeftum (dat pl of nearocraeft 'skill in enclosing'), nearonêdum (dat pl of nearonenêd 'urgent need'), nearusearwe (dat sg of nearusearu 'dark cunning'), nearusorge (dat sg of nearusorg 'crushing distress'), nearopherfe (dat sg of nearopherf 'dire need'), nearowrencum (dat pl of nearowrenc 'evil trick')

l. rodrostôlas (nom/acc pl of rodrostôl 'heavenly throne'), rodortunglum (dat pl of rodortungol 'star of heaven')

m. salopâde (dat sg of salopâd 'dark-coated'), sceadugenga 'wanderer in
darkness’, sceaduhelma (gen pl of sceaduhelm ‘darkness’), searoçræftig ‘cunning’, searogrimmes (gen sg of searogrim ‘fierce’), searonfþa (gen pl of searonfþa ‘strife’), searonfþas (nom/acc pl of searonfþa), searonfþna (gen pl of searonfþa ‘mystery’), searoæled ‘cleverly bound’, searoæpancum (dat pl of searoæpan ‘skill’), searoæpancum (=searoæpan), searoæpancole (acc sg fem of searoæpancole ‘wise’), searoæpanool (=searoæpancole), searoæpancole (=searoæpancole), sigebýman (nom/acc pl of sigebýma ‘triump’ (weak declension)), sigehræmig ‘rejoicing in victory’, sigehræmig (=sigehræmg), sigehwîla (gen pl of sigehwîl ‘hour of victory’), sigeléana (gen pl of sigeléan ‘reward of victory’), sigerôfe (acc sg fem of sigerôf ‘triump’ (weak declension)), sigerôfne (acc sg masc of sigerôf), sigerôfna (gen pl of sigerôf), sigerôfum (dat/inst pl of sigerôf), sigetûdre (dat sg of sigetûdor ‘dominating race’), sigèpréahte (dat sg of sigeþpréaht ‘victorious troop’), sigewêpum (dat pl of sigewêpen ‘victorious weapon’), sigorþanum (dat pl of sigorþan ‘reward of victory’), sigorþaum (dat pl of sigorþacen ‘conving sign’), sigorgetlare (dat sg of sigorgetlare ‘offering for victory’), sigorwludre (dat sg of sigorwludor ‘glory of victory’), snytruhús (dat sg of snytruhús ‘house of wisdom’), sperebrôgan (nom/acc pl of sperebrôga ‘terror at spears’ (weak declension)), sperebrôge (acc sg fem of sumorlang ‘summer-long’), sumorlangne (acc sg masc of sumorlang ‘summer-long’), sumurlange (acc sg fem of sumurlang (=sumorlang)), sumerlonge (acc sg masc of sumerlong (=sumerlang)), sygegealdor ‘victory-bringing charm’

**n.** waeterbrôgan (gen pl of waeterbrôga ‘frightful flood’), waeterburnan (nom/acc pl of waeterburne ‘water stream’ (weak declension)), waetergrundum (dat pl of waetergrund ‘sea-bottom’), waeterstræmamas (nom/acc pl of waeterstræm ‘river’), waeterbissa ‘whale ship’, waeterþyrdum (dat pl of waeterþyrd ‘rush of water’), waeterþyrdum (dat pl of waeterþyrd ‘conduit’), wedercandel ‘sun’, wedercandel (=wedercandel), wingeþomor ‘mourning for friends’, wederwolcan ‘cloud’, winemæga (gen pl of winemæga ‘dear kinsman’), winemægum (dat pl of winemæg), winemæg (=winemæga), winemægas (nom/acc pl of winemæg), winemægum (=winemægum), woruldhýhte (dat sg of woruldhýht ‘earthly joy’), wudubêama (gen pl of wudubêam), woruldcraet (gen pl of woruldcraeft ‘secular art’), woruldcraeftas (nom/acc pl of woruldcraeft), world lif (dat sg of woruldf ‘life in this world’), woruldfif
(=woruldrēce), woruldmēgas (nom/acc pl of woruldmēg ‘earthly kinsman’), woruldrēce ‘earthly kingdom’, woruldrīcu (nom/acc pl of woruldrēce), woruldrīcum (dat pl of woruldrēce), woroldrēce (=woruldrēce), woruldrīht (dat sg of woruldrīht ‘world right’), woruldṣǣda (gen pl of woruldṣǣd ‘earthly blessing’), woruldṣceafta (gen pl of woruldṣceaft ‘earthly creature’), woruldstrenga (gen pl of woruldstreng ‘physical strength’), woruldstundum (dat pl of woruldstund ‘sojourn upon earth’), woruldþinga (gen pl of woruldþing ‘worldly affair’), woruldwidles (gen sg of woruldwidl ‘world filth’), woruldwīle ‘punishment’, worulduynma ‘earthly wretchedness’, wuduholtum (dat pl of wuduholt ‘forest’), wuduhrēce ‘smoke from funeral pyre’, wudutelga ‘branch of a tree’

o. yfeldǣda (gen pl of yfeldǣd ‘evil deed’)

The result of the survey is that the word-type in (36) rarely constitutes a single half-line. There are about 800 half-lines which contain the words in (42). Among them, four examples of half-line type (36) are found. (Paris Psalter 68.8 4b, 77.6 1b, 73.11 3b, Precepts 12a). Its frequency of occurrence is about 0.5%. Recall that the rarity of the half-line type is assumed to be attributed to the application of Clash Deletion (11). The result of the survey indicates therefore that rule (11) is indispensable for explaining the rarity of (36) by means of the MHLC.

5. The Distribution of Trisyllabic Words in the ASPR

I turn to an examination of the distribution of the word-type in (30), repeated as (43) below, in the ASPR.

(43) [WORD LXX]

The prediction that Clash Deletion (11) makes about word-type (43) is that it occurs in Sievers’s quadrisyllabic Type D half-lines, as shown in (44), and does not in his quadrisyllabic Type E half-lines, as shown in (45).

(44) [WORD X][WORD LXX] (45) *[WORD LXX][WORD X]

This prediction is also borne out by facts about the occurrence and the nonoccurrence of half-lines in OE alliterative verse.

The occurrence of half-lines like (44) is exemplified by the data in (46).

(46) a. feorh cyninges ‘the king’s life’ (Beowulf 1210b)
b. folc Cananē ‘the people of Cannan’ (Genesis A 1909a)
c. fyll cyninges ‘the king’s death’ (Beowulf 2912b)
d. sār wanian ‘(shall) diminish the pain’ (Guthlac B 1073b)
e. wroht wriðian ‘to flourish the sin’ (Genesis A 1903a)
These half-lines consist of two words, one being a monosyllabic word and the other being a trisyllabic word headed by a light syllable.

The rarity of half-lines like (45) is also confirmed by at least two facts. One is that half-lines beginning with a trisyllabic word headed by a light syllable mostly contain five syllables, as the half-lines in (47) indicate.

(47) a. felahrōr fērān ‘strong comrades’ (Beowulf 27a)
    b. merehūs micēl ‘the great Ark’ (Genesis A 1303a)
    c. searohwīt sōlāb ‘... soil the beautiful witeness’ (Riming Poem 67a)
    d. sigelēan sēcan ‘to seek the reward of victory’ (Fates of Apostles 81a)
    e. sigorlēan sōhte ‘... sought the reward of victory’ (Guthlac B 1370a)

Another fact which confirms the rarity of the half-line type in (45) comes from a statistical survey of the distribution of trisyllabic words in the ASPR. I examined the distribution of the trisyllabic words in (48), which include citation forms of trisyllabic words headed by a light syllable, and of those in (49), which include trisyllabic inflected forms of disyllabic words headed by a light syllable. In particular, I examined whether or not the words in (48) and (49) occur in Sievers’s quadrisyllabic TYPE E half-lines.

(48) a. æðele ‘excellent’, æðelings ‘prince’, ædelu ‘nobility’
    b. berian ‘to make bare’, berigean (=berian), beredon (pret pl of berian),
       bysigu ‘affliction’
    c. culufre ‘pigeon’
    d. eafora ‘son’, egesa ‘fear’
    e. fērān ‘to go’, feredest (pres 2 sg of fērān), fēriap (pres pl of fērān),
       fērīgan (=fērīan), fērigean (=fērīan), ferede (pret 1, 3 sg of fērīan),
       feredon (pret pl of fērīan)
    f. ðæodeling ‘kinsman’, gifulde ‘given’
    g. hatiæan ‘to be hot’, heriæan ‘to praise’, herīgan (=heriæan), herige (pres 1 sg of heriæan) (=herie),
       heriæap (pres pl of heriæan), herigað (=heriæap),
       herigað (=heriæap), herede (pret 1, 3 sg of heriæan), heredon (pret pl of heriæan),
       herigen (subj pl of heriæan) (=heriæen), hwæpere ‘still’
    h. lifiæan ‘to live’, luftiæan ‘to love’, luflie (pres 1 sg of luftiæan), luflige (=luflie),
       lufliað (pres pl of luftiæan), luflode (pret 1, 3 sg of luftiæan), luflodon (pret pl of luftiæan),
       luflin (subj pl of luftiæan)
    i. nerian ‘to save’, nerede (pret 1, 3 sg of nerian)
    j. scirian ‘to ordain’, scyrian (=scirian), scyrede (pret 1, 3 sg of scyrian),
       swerian ‘to swear’, swerigean (=swerian), sweriæað (pres pl of swerian)
    k. tīdiæ ‘to give’, tīdiæað (imp pl of tīdiæan)
1. ufera ‘later’, ufara (=ufera)

m. wanian ‘to diminish’, wanigean (=wanian), wanige (pres 1 sg of wanian), waniad (pres pl of wanian), wanode (pret 1, 3 sg of wanian), wariad ‘to guard’, wariegad (pres pl of warian), warigea (=wariegad), weotena ‘wise man’, werian ‘to guard’, weriegean (=werian), werie (pres 1 sg of werian), weriad (pres pl of werian), werede (pret 1, 3 sg of werian), weredon (pret pl of werian), wanian ‘to inhabit’, wunigean (=wunian), wunodest (pres 2 sg of wunian), wunode (pret 1, 3 sg of wunian), wunude (=wunode), wunodon (pret pl of wunian)

(49) a. duguda (gen pl of duguō ‘people’), dugud (dat sg of duguō), dugudum (dat pl of duguō), duguda (=duguda), dugude (=dugude), dugedum (=dugedum), dugoda (=dugoda), dugode (=dugode), dugodum (=dugodum)

b. faēdara (gen pl of faēder ‘father’), faēderas (nom/acc pl of faēder), faēderes (gen sg of faēder), faēderum (dat pl of faēder), faērode (dat sg of faēroō ‘sea’), fugolas (nom/acc pl of fugol), fugule (dat sg of fugul (=fugol)), fugelas (nom/acc pl of fugel (=fugol)), fugules (gen sg of fugel (=fugol))

c. gafole (dat sg of gafol ‘tribute’), gafoles (gen sg of gafol), geogode (dat sg of geogoō ‘the state of youth’), geogude (=geogode), gomene (dat sg of gomene ‘joy’), gomenes (gen sg of gomen), gamene (=gamene), gamenes (=gomenes)

d. haēleda (gen pl of haēled ‘hero’), haēledas (nom/acc pl of haēled), haēled (dat sg of haēled), haēleddum (=haēledum), hoefona (gen pl of hoefon ‘heaven’), hoefones (gen sg of hoefon), hoefonum (dat pl of hoefon), hoefena (=hoefona), hoefenas (=hoefonas), hoefenes (=hoefones), hoefonum (=hoefonum)

e. idesa (gen pl of ides ‘woman’), ideše (dat sg of ides), idesem (dat pl of ides)

f. legere (dat sg of leger ‘place of lying’)

g. mægena (gen pl of mægen ‘strength’), mægana (dat sg of mægen), mægenes (gen sg of mægen), micela (nom/acc pl fem of micel ‘much’), micelan (nom/acc pl masc/neut/fem of micel (weak declension)), micel fem sg of micel), micelles (gen sg masc/neut of micel), micelra (gen pl masc/neut/fem of micel), mycelan (=micelan), mycel (=micel), mycelra (=micelra), mycelum (=micelum), monig (inst sg of masc/neut/fem of monig ‘many’), moniges (gen sg of masc/neut/fem of monig),
monigum (dat/inst pl masc/neut/fem of monig)

h. nacodan (nom/acc pl masc/neut/fem of nacod ‘nude’), nocode (inst sg masc/neut of nacod), neowolne (acc sg masc of neowol ‘steep’), neowulne (=neowolne)

i. openan (nom/acc pl masc/neut/fem of open ‘open’ (weak declension)), opene (acc sg fem, inst sg masc/neut of open), openum (dat sg masc/neut of open)

j. rodora (gen pl of rodor ‘heaven’), rodoras (nom/acc pl of rodor), rodore (dat sg of rodor), rodores (gen sg of rodor), rodorum (dat pl of rodor), rodera (=rodora), roderas (=rodoras), roder (=rodore), roderes (=rodores), roderum (=rodorum)

k. weliga (nom/acc pl fem of wellig ‘wealthy’), weligan (nom/acc masc/neut/fem of wellig (weak declension)), welige (acc sg fem of welig), weligne (acc sg masc of welig), weroda (gen pl of werod ‘host’), werode (dat sg of werod), werodas (nom/acc pl of werod), werodum (dat pl of werod)

l. yfel (nom/acc pl fem of yfel ‘evil’), yfelan (nom/acc pl masc/neut/fem of yfel (weak declension)), yfele (acc sg fem of yfel), yfelles (gen sg masc/neut of yfel), yfelne (acc sg masc of yfel), yfelum (dat sg masc/neut of yfel)

The result of the survey is that only one example of half-line type (45) is found (Genesis A 2518b). This implies that the half-line type is identified as ill-formed. It meets the structural description of Clash Deletion (11) and is transformed into an illegitimate two-foot half-line through the application of the rule.

Given the MHLC, the rarity of half-line type (45) is explained only by recourse to Clash Deletion (11). In other words, the result of the survey indicates that rule (11) is indispensable for explaining the rarity of half-line type (45) and the distributional contrast between (44) and (45).

6. Exceptions and Their Explanations

In this section, I will explain exceptional cases to the factual generalization I have proposed in this paper, arguing that they do not serve as counterexamples. There are two kinds of exceptional cases. One involves exceptions to the generalization that quadrissyllabic words headed by a light syllable cannot constitute a single half-line. As mentioned in section 4, four exceptions are found among the half-lines I examined. They are given in (50).

(50) a. modercildum ‘a child of one’s own mother’ (Paris Psalter 68.8 4b)
b. efenmidre ‘middle’ (Paris Psalter 73.11 3b)
c. snytruhūse ‘house of wisdom’ (Paris Psalter 77.60 1b)
d. fægerwyrde ‘smooth speaking’ (Precepts 12a)

The words given in (50) all have the structure in (51a). It meets the structural description of Clash Deletion (11) and is transformed into a two-foot word, as shown in (51b), through the application of the rule. Thus, they are not expected to occur.

(51) a. * * * b. * * *
    (**)(*)(*) (**) *)(*)
    [word LX H X] [word LX H X]

The occurrence of the half-lines in (50) is not predicted by the devices proposed here. Thus, they have the possibility of serving as counterexamples to Clash Deletion (11). However, they are not to be seen as counterexamples to the rule for the following reasons.

The first reason is that they have a low frequency of occurrence. As mentioned in section 4, their frequency of occurrence is about 0.5%.

A second reason is that half-lines like those in (50) occur mainly in a particular alliterative poem composed in the Late OE period. Although Precepts is a poem composed in the Early OE period, Paris Psalter was composed in the Late OE period (Krapp and Dobbin (1931-1954)). It is therefore not unreasonable to assume that (50a-c) occur because of the loosening of either the MHLC or Clash Deletion Rule (11) in the Late OE period. In particular, either the MHLC lost the power of regulating the occurrence and the nonoccurrence of half-lines consisting solely of a quadrisyllabic word, or Clash Deletion (11) did not apply to quadrisyllabic words headed by a light syllable. (50d) does not falsify (11), either. That is because it is the only example that is found in the range of early OE alliterative poems I examined. It has the possibility of occurring accidentally because of a scribal error.

The other class of exception involves quadrisyllabic TYPE E half-lines beginning with a trisyllabic word headed by a light syllable. As mentioned in section 5, only one such example is found in the range of half-lines that I examined in the ASPR. It is given in (52).

(52) tiädiað mē ‘give (imp) me’ (Genesis A 2518b)

This example also has the possibility of falsifying Clash Deletion (11). Actually, however, it does not for the following reasons.

The first reason is that the frequency of occurrence of examples like (52) is low. As mentioned above, (52) is the only example that is found in the range of half-lines that I examined.

The second reason is that the occurrence of (52) is explained by postulating
another language-specific constraint on the well-formedness of half-lines and a constraint ranking. The relevant constraint, called here the Rhythmic Constraint (henceforth, RC), is formulated in our terms as in (53) (cf. Fujiwara (1990:181)).

(53) Rhythmic Constraint (RC)
The rhythmic pattern SW, where S corresponds to a word containing an alliterating consonant, must be realized in half-lines of OE alliterative verse.

The relevant constraint ranking is formulated as in (54).

(54) \( RC \gg MHLC \)

This ranking indicates that the RC is more important than the MHLC. Put differently, a violation of the RC must be avoided even if a violation of the MHLC takes place.

Note in passing that, as briefly mentioned above, the two constraints relevant to the discussion here are characterized as language-specific constraints. They are different in nature from constraints postulated in Optimality Theory (henceforth, OT), where only universal constraints are assumed to be operative in determining phonological well-formedness (cf. Prince and Smolensky (1993)). Thus, the ranking in (54), which bears a certain similarity in appearance to constraint ranking in OT, does not necessarily imply that language-specific constraints are to be introduced into OT. For this issue, see Okazaki (1998).

Half-line (52), which violates the MHLC, obeys the RC. Its long-line exhibits the alliteration of /l/, as shown in (55).

(55) \( S \quad S \quad \text{trēow and hyldo} \quad \tilde{t}i\tilde{d}a\tilde{d} \quad mē \quad \text{'Give me grace and favor'} \) (Genesis A 2518)

Notice that a half-line like (56) is logically allowed to occur. It observes the MHLC. However, it cannot occur in phonological contexts like that in (55). It exhibits the rhythmic pattern WS, which is prohibited by the RC.

(56) \( W \quad S \quad \ast mē \quad \tilde{t}i\tilde{d}a\tilde{d} \quad \)

The reason for the existence of half-line (52) is that obeying the MHLC results in a violation of the RC, whose violations must always be avoided.

7. Previous Studies

Having demonstrated that the distributional restrictions on the word-types in (25), (26), and (30) are captured by recourse not only to the MHLC but also to Clash Deletion (11), I now turn to an examination of whether or not dominant previous studies on OE meter can capture the restrictions in a principled manner.
6.1. Sievers (1885, 1893)

Sievers (1885, 1893), who constructs a theory of OE meter on the hypothesis that canonical half-lines contain four metrical positions, explains the distributional restrictions on the occurrence and the nonoccurrence of the half-line types under discussion by the application and the suspension of a device, called resolution (Auflösung in Sievers’s original term), by which the sequence of a light syllable plus another syllable is equated with one heavy syllable.

A resolution-based analysis of the distributional contrast between half-line type (25) and half-line type (26), repeated below, proceeds as follows.

(25) [\text{word} HLXX] \hspace{1cm} (26) *[\text{word} LXXH]

The reason for the occurrence of (25) is simply that the application of resolution is assumed to be suspended in word-medial position. Thus, half-line type (25) is seen as a well-formed half-line containing four metrical positions. The reason for the rarity of (26) is that resolution applies to the word-initial sequence of a light syllable plus another syllable. The half-line type is seen as containing three metrical positions.

The distributional difference between (31) and (32), repeated below, is also attributed to the application and the suspension of resolution.

(31) [\text{word} X][\text{word} LXX] \hspace{1cm} (32) *[\text{word} LXX][\text{word} X]

In (31), which is licensed as well-formed, the application of resolution is blocked. The half-line type retains four metrical positions. That is why it is well-formed. In (32), by contrast, resolution applies to the word-initial sequence of a light syllable plus another syllable in the first word. The half-line type is seen as containing three metrical positions. Thus, it is seen as ill-formed.

The explanation for the relevant facts in terms of resolution seems to work well. Notice, however, that there are some critical problems with resolution itself. The first problem is that there are too many exceptions to maintain the device. In particular, there are a lot of trisyllabic half-lines like those in (17), repeated below, which are expected not to occur.

(17) a. [\text{word} HX][\text{word} X] \hspace{1cm} b. [\text{word} X][\text{word} HX] \hspace{1cm} c. [\text{word} X][\text{word} X][\text{word} X]

Thus, as Fujiwara (1990:313-328) points out, resolution does not have any firm empirical basis.

A second problem with resolution is that conditions on its application and nonapplication are not clear at all in Sievers’s theory of meter. Consider the contrast between (31) and (32), for example. This contrast is accounted for in Sievers’s framework only if resolution is assumed not to apply to the former. However, Sievers’s framework does not provide any answer to the essential question of why the device does not apply to (31). Its application is determined in an arbitrary way.
Mainly for the two above-mentioned reasons, resolution is untenable. Thus, the resolution-based explanation for the relevant facts is also untenable.


Russom (1987) constructs a new theory of OE meter on the assumption that alliteration and its produced rhythmic pattern play the most important role in generating half-lines of OE alliterative verse. In this respect, Russom’s theory diverges from the traditional OE metrics. However, the theory also contains rules for resolution as one of its essential elements. Most relevant to the discussion here is the following rule (Russom (1987:45)).

(57) A short syllable on an S position normally undergoes resolution.

\(S\) position=a metrical position corresponding to a syllable bearing primary word stress

The distributional contrast between (25) and (26), repeated below, is explained by (57).

(25) \([\text{word } \text{HLXX}]\)

(26) \(*[\text{word } \text{LXHX}]\)

In (25), the sequence of a light syllable plus another syllable is in word-medial position, which is not identified as an S position in Russom’s theory. Thus, resolution does not apply. The half-line type has four metrical positions and is licensed as well-formed.

In (26), by contrast, the relevant sequence is in word-initial position, which is identified as an S position in Russom’s theory. Thus, resolution applies to the half-line type to transform it into a half-line containing three metrical positions. That is why (26) is ill-formed.

Rule (57), however, fails to explain the distributional contrast between (31) and (32), repeated below.

(31) \([\text{word } \text{X}][\text{word } \text{LXX}]\)

(32) \(*[\text{word } \text{LXX}][\text{word } \text{X}]\)

In both sorts of cases, the sequence of a light syllable plus another syllable is in word-initial position, which is identified as an S position in Russom’s theory. Thus, the rules are expected to apply to both types of half-lines, and the two types are identified as ill-formed and do not occur. This expectation is, however, factually incompatible. Half-line type (31) actually occurs. Thus, Russom should explain why resolution does not apply to (31), although it meets the structural description of the rule.

Russom (1998:98) goes one step further and proposes articulated versions of rules for resolution. Most relevant to the discussion here is the following rule.

(58) Alliteration on the most prominent S position makes resolution less natural on a subordinate S or s position within the same metrical domain.

\(S\) position=a metrical position corresponding to a syllable bearing primary
word stress; s position=a metrical position corresponding to a syllable bearing secondary word stress)

This rule naturally applies to half-line type (31). In this type of half-line, as indicated in (59), the monosyllabic word in the initial position of the half-line corresponds to the most prominent S position because of alliteration, and the light syllable in the initial position of the trisyllabic word corresponds to a subordinate S position.

(59) S S

[\text{word X}] [\text{word LXX}]

(X=a syllable containing an alliterating consonant)

The sequence of a light syllable plus another syllable corresponds to a subordinate S position. Thus, resolution does not apply to the relevant sequence in (31).

However, it is still unclear why resolution at a subordinate S position and at an s position is less natural than that at the most prominent S position. Thus, his proposed rules for resolution, though valid as descriptive devices, do not provide any principled explanations for the application and nonapplication of resolution.

Recall here again that, as mentioned in the previous subsection, there are many half-lines like those in (17) which contain only three metrical positions. In fact, they should not be seen as merely irregular cases. The presence of such cases indicates that rules for resolution, even if they are highly articulated in an unarbitrary way, do not have any firm empirical bases. There are too many exceptions to maintain the rules.

Although Russom's theory of meter seems to be novel, it contains the same empirical problems that Sievers's theory of meter has and cannot explain in a principled way the distributitional contrast between (25) and (26) or that between (31) and (32). This implies in fact that theories of OE meter which include resolution as one of the essential elements cannot explain the distributitional contrasts under discussion.

6.3. Fujiwara (1990)

Fujiwara (1990) points out problems with both the traditional and the generative-phonological theories of OE meter and proposes an alternative theory. In particular, Fujiwara proposes that what is metrically relevant in half-lines is a strong syllable containing an alliterating consonant and the following weak syllable and that half-line types are reduced ultimately to the two types in (60) in accordance with alliteration (Fujiwara (1990:181)).

(60) a. single alliteration   b. double alliteration

\begin{align*}
&\text{long-line} \\
&\text{half-line} \quad \text{half-line} \\
&\text{S} \quad \text{W} \quad \text{S} \quad \text{W}
\end{align*}

\begin{align*}
&\text{long-line} \\
&\text{S} \quad \text{W} \quad \text{S} \quad \text{W}
\end{align*}
In addition, Fujiwara (1990:313-328) argues that resolution plays no role in determining the well-formedness of half-lines.

Fujiwara’s (1990) framework cannot distinguish (25) from (26) or (31) from (32). Recall that in Fujiwara’s framework, only two syllables (a strong syllable containing an alliterating consonant and the following weak syllable) are metrically relevant. Thus, (25) and (26) are, as shown in (61), classified as the same half-line type.

\[
\begin{align*}
(61) & \text{ a. } \text{SW} & \text{ b. } \text{SW} \\
& \text{[word HLXX]} & \text{[word LXHX]} \\
\end{align*}
\]

The same is true of (31) and (32). In both types of half-lines, the first word mostly contains an alliterating consonant. Thus, they have exactly the same metrical structure, as shown in (62). (Fujiwara (1990) assumes that in two-word half-lines where the first word contains an alliterating consonant, the most strong syllable of the second word corresponds to a W position.)

\[
\begin{align*}
(62) & \text{ a. } \text{S W} & \text{ b. } \text{S W} \\
& \text{[word X][word LX]} & \text{[word LX][word X]} \\
\end{align*}
\]

It follows, then, that Fujiwara (1990) cannot capture the distributional difference between (25) and (26) or that between (31) and (32).

8. Concluding Remarks

In this paper, I have been concerned with the task of illustrating the validity of two theoretical devices which Okazaki (1998) proposes. One is a constraint on the well-formedness of half-lines of OE alliterative verse, called the Minimal Half-Line Constraint (MHLC). The other is a rule operative on the second metrical plane in OE, called Clash Deletion. I selected three word-types and examined their distribution in the ASPR. On the basis of the examination, I have demonstrated that their distributional restrictions in Sievers’s TYPE D and TYPE E half-lines are elegantly captured by the MHLC and Clash Deletion. In fact, the latter device is indispensible for explaining their distributional restrictions.

NOTE

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