

An Alliterative Study of the Sound Values of ‘Initial *h* + sonorant’ clusters in *Beowulf*:

Is the initial *h* a diacritic mark or not?*

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1. Introduction

Old English scholarship has discussed so far two interpretations of the problematic sound values of the ‘initial *h* + sonorant’ clusters in Old English. After a brief summary of these interpretations, the paper examines the sound values of the ‘initial *h* + sonorant’ clusters through an analysis of their alliterations in *Beowulf*, with special reference to whether the initial *h* immediately standing before the sonorant is a diacritic mark or not in the poem. The data that are collected for the analysis are listed at the end of the paper.

2. Two interpretations of the sound values of the ‘initial *h* + sonorant’ clusters in Old English

The interpretations of the sound values of the ‘initial *h* + sonorant’ clusters in Old English (*hr-*, *hl-*, *hn-*, and *hw-*) can be chiefly divided into two groups. The key question classifying these interpretations depends on whether the initial *h* immediately followed by a sonorant in Old English is only a diacritic mark indicating the voicelessness of the sonorant concerned or not.

Among the scholars who interpret the initial *h* in the clusters concerned as a diacritic mark are Brunner (1965), Sweet (1953), and Campbell (1959). Brunner (1965:180) gives a simple comment about a possible distinction of the sound values between the initial *h* standing before a vowel and that before a sonorant:

Anlautendes *h* ist einfacher Hauchlaut. Es steht unbeschränkt vor Vokalen, außerdem in den Verbindungen *hl*, *hr*, *hn*, *hw*, die vielleicht nur als stimmlose *l*, *r*, *n*, *w* auszufassen sind ...¹

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¹ The term ‘Verbindung’ (consonant cluster) might be rejected from the point of view of modern phonology, because this interpretation regards *hl*, *hr*, *hn*, *hw* as digraphs representing one consonant. This terminological ambiguity arises because of their orthographic appearance in Old English.

Sweet (1953:3) also regards the initial *h* immediately preceding the sonorant as a diacritic mark, and gives the following phonetic and phonemic interpretations with illustrations of words beginning with ‘*h* + sonorant’ clusters in Old English:

hw, as in *hwæt*, ‘what’, *hwīl* ‘while’, had the sound of M[oder]n. E[nglish]. *wh* as pronounced in northern England and in Scotland. The other groups *hl*, *hn*, *hr* differed from *l*, *n*, *r* as *wh* differs from *w*—that is, they were made in the same way but ‘unvoiced’, *hl* being nearly the same as Welsh *ll*: *hlāford* ‘lord’, *hnappian* ‘doze’, *hrabe* ‘quickly’.

As for the historical developments of these consonant clusters, Campbell (1959) takes the line of argument that Proto-Germanic χ , which was produced through Grimm’s Law, became a glottal fricative initially in all Germanic languages, and that when it stands initially before the sonorant, this glottal fricative disappeared during the linguistic transitional period to Old English, leaving its immediately following sonorant voiceless, and remained as only a diacritic mark in Old English to indicate the voicelessness of the sonorant. As a further step, Campbell (1959) expounds diagrammatically the Old English consonant system based on this view, and establishes the special consonant categories named voiceless liquids and voiceless nasals in the diagram, in which *hl* and *hr* correspond with the former, and *hn* the latter.²

There are, on the other hand, scholars who interpret the initial *h* in the clusters concerned not as a diacritic mark indicating the voicelessness of its immediately following consonant, but as a glottal fricative. Among these scholars are Luick (1914-40), Wright and Wright (1925), Prokosch (1939), Reszkiewicz (1973), and Hogg (1992). As for the historical development and the sound value of the initial *h* concerned, Luick (1914-40:834) writes as follows, illustrating words beginning with ‘*h* + sonorant’ like *hrycg*, *hlāford*, *hnutu*, *hwæt* as well as words beginning with ‘*h* + vowel’ like *hider*, *hēr*, *hand*, *hōc*, *hūs*:

Das aus dem Urgermanischen übernommene χ , das Verschiebungsprodukt von vorgermanisch *k* und *kh*, wurde gemeingermanisch im Anlaut zum bloßen Hauchlaut ... und erscheint dementsprechend wie in den anderen germanischen Sprachen im Altenglischen als *h* ...

² Campbell (1959:20, 26, 186).

Prokosch (1939) and Reszkiewicz (1973) agree with Luick (1914-40) on this point.³ Agreeing approximately with Luick (1914-40), the following remark of Wright and Wright (1925:169-170) on the initial *h* in Old English may attract our interest with the citation of examples like *hwā*, *hwīl*:

In O[ld]E[n]glish. it [initial χ] also became an aspirate initially before consonants except in the combination χw . The spirant remained in the combination χw and has been preserved in many Scottish dialects down to the present day.

Hogg (1992), like Luick (1914-40), thinks that Proto-Germanic χ appeared as a glottal fricative, not as a diacritic mark, initially even before the sonorant, but his view might appear to be similar to that of Brunner (1965), Campbell (1959), and Sweet (1953) on the point that the immediately following sonorant should be considered as voiceless consonant. Hogg (1992)'s hypothesis is that this initial *h* before the sonorant would be a weakly articulated glottal fricative, and its inherent voicelessness may well have transferred to the following sonorant, so that Hogg (1992)'s phonetic representation of these initial consonant clusters will be equal to glottal fricative + voiceless sonorant.⁴

Over the 'initial *h* + sonorant' cluster problem, we have seen the two opposing views among the scholars, and those views are opposing because their standpoints differ from one another basically on the key question whether the *h* is a diacritic mark or not when it stands initially before the sonorant in Old English. In the following sections, the sound values of the 'initial *h* + sonorant' clusters, especially the quality of initial *h* before the sonorant, are examined through an analysis of their alliterations in *Beowulf*.

3. An alliterative study of the 'initial *h* + sonorant' clusters in *Beowulf*

Hereafter summarized and analyzed are the alliterative schemes of all the lines in *Beowulf* in which syllables beginning with the 'initial *h* + sonorant' clusters are involved. All the data for the analysis of the present study are listed at the end of the paper.⁵

Among 3182 lines of *Beowulf* there are 209 lines in which we can find the alliterative schemes where syllables with the 'initial *h* + sonorant' clusters are involved. These lines are classified into four normal categories of alliteration, i.e. single alliteration, double alliteration,

³ Prokosch (1939:83-4) and Reszkiewicz (1973:35-6).

⁴ Hogg (1992:39-40).

⁵ The edition used in the present study is Dobbie (1953).

crossed alliteration, and transverse alliteration. Exceptional lines, namely those which undergo emendations or restorations of the text affecting alliterative patterns where ‘initial *h* + sonorant’ clusters are involved, those which are defective lines, and those which should be classified as hypermetric are excluded from the aforesaid total number of the lines and the corpus of the present study for considerations of space.

3.1. Single alliteration (ax / ax or xa / ax)

There are 88 lines in total which are classified into the pattern of single alliteration. Out of 88 lines, 75 lines represent ax / ax, and 13 xa / ax. In the case of this alliterative pattern, we can assert that the existence of the initial glottal fricative even before the sonorant is demonstrated by these lines except for the lines in which two alliterative positions are occupied by the same ‘initial *h* + sonorant’ cluster, because the alliteration of the same consonant cluster in this pattern does not decide the question whether the initial *h* is a diacritic mark or a glottal fricative before the sonorant. Consequently, we can divide these data into two groups, one in which different consonant clusters or one ‘initial *h* + sonorant’ cluster and ‘*h* + vowel’ occupy the alliterative positions, the other in which the same consonant cluster occupies them. In the first place the data that point to the existence of the glottal fricative represented by a graph *h* are given, and the data that do not in the second place.

The data which point to the existence, or the clear sound value, of the initial *h* before the sonorant are illustrated below. The alliteration, not a decorative device, but a device of structural necessity in Old English poetry, will be broken if we interpret the initial *h* not as a glottal fricative, but as only a diacritic mark with no sound value on its own. In the cases of the ax / ax pattern where *hV* (*h* + vowel) in the on-verse alliterates with the cluster *hl* or *hr* or *hn* or *hw* in the off-verse, we can find 34 examples, some of which are illustrated as follows: (‘initial *h* + sonorant’ clusters involved in the alliterative scheme of the line are highlighted in boldface; in the case of *hV*, *h* alone is highlighted in the same way)

Single alliteration (ax / ax)

(1) *hV* in on-verse alliterating with *hl* in off-verse

1415 ofer **h**arne stan **h**leonian funde,
 3020 nu se **h**erewisa **h**leahtor alegde,

(2) *hV* in on-verse alliterating with *hr* in off-verse

396 under heregriman **H**roðgar geseon;
1576 hilderince, ac he **h**raþe wolde

(3) *hV* in on-verse alliterating with *hn* in off-verse

952 hordweorþunge **h**nahran rince,
1327 hafelan weredon, þonne **h**niton feþan,

(4) *hV* in on-verse alliterating with *hw* in off-verse

526 ðeah þu heaðoræsa ge**h**wær dohte,
584 æt heaðolace, ne ge**h**wæþer incer,

As for the cases of ax / ax pattern where *hl* in the on-verse alliterates with the cluster *hV* or *hr* or *hn* or *hw* in the off-verse, we can find only examples of *hl* in the on-verse alliterating with *hV* or *hr* in the off-verse. The total number of the lines is 5, 4 out of which show the *hl* in the on-verse alliterating with *hV*, and 1 out of which shows *hl* with *hr*. Some sample lines are illustrated below:

(5) *hl* in on-verse alliterating with *hV* in off-verse

1979 þurh hleoðorcwyde holdne gegrette,
3169 Þa ymbe hlæw riodan hildediore,

(6) *hl* in on-verse alliterating with *hr* in off-verse

304 ofer hleorberan gehroden golde,

As for the cases of ax / ax pattern where *hr* in the on-verse alliterates with *hV* or *hl* or *hn* or *hw* in the off-verse, we can find 28 examples, all of which show the alliteration of *hr* in the on-verse with *hV* in the off-verse. Ten out of all the instances are shown below:

(7) *hr* in on-verse alliterating with *hV* in off-verse

10 ofer hronrade hyran scolde,
371 Hroðgar mæpelode, helm Scyldinga:
963 Ic hine hrædlice heardan clammum
1483 Hroðgar leofa, Higelace onsend.

1507 **h**ringa þengel to **h**ofe sinum,
 1769 Swa ic **H**ringdena **h**und missera
 1801 oþþæt **h**refn blaca **h**eofones wynne
 2561 ða wæs **h**ringbogan **h**eorte gefysed
 2840 oððe **h**ringsele **h**ondum styrede,
 2992 **H**reðles eafora, þa he to **h**am becom,

Concerning the cases of ax / ax pattern in which *hn* in the on-verse alliterates with the cluster *hV* or *hl* or *hr* or *hw* in the off-verse, no instance is found, while we can find 3 lines where *hw* in the on-verse alliterates with *hV* or *hr*, all of which are illustrated as follows:

(8) *hw* in on-verse alliterating with *hV* in off-verse

1601 **h**wate Scyldingas; gewat him **h**am þonon
 2137 þær unc **h**wile wæs **h**and gemæne,

(9) *hw* in on-verse alliterating with *hr* in off-verse

2171 ond geh**h**wæðer oðrum **h**roþra gemyndig.

In the next place let us take a closer look at the other type of single alliteration, xa / ax.⁶ In the cases of xa / ax pattern where *hV* in the on-verse alliterates with one of the ‘initial *h* + sonorant’ clusters in the off-verse, there are 7 instances out of 13, which is the total number of the lines of xa / ax type. Three lines show the alliteration of *hV* in the on-verse with *hl* in the off-verse, and 4 show the alliteration of *hV* with *hr*. Two examples are illustrated below for each type of alliteration:

Single alliteration (xa / ax)

(10) *hV* in on-verse alliterating with *hl* in off-verse

1892 no he mid **h**earme of **h**liðes nosan
 2634 þonne we geh**h**eton ussum **h**laforde

⁶ This type of alliteration, xa / ax, is metrically very restricted in *Beowulf*, only occurring when the first half-line conforms to the A3 type according to Bliss (1958).

(11) *hV* in on-verse alliterating with *hr* in off-verse

1279 Com þa to **H**eorote, ðær **H**ringdene
2809 Dyde him of **h**ealse **h**ring gyldenne

There is only 1 line of *xa / ax* type alliteration where *hl* in the on-verse alliterates with the syllable with the initial *h* in the off-verse, which is illustrated below:

(12) *hl* in on-verse alliterating with *hV* in off-verse

3126 Næs ða on **h**lytme hwa þæt **h**ord strude,

As for the cases of *xa / ax* pattern where *hr* in the on-verse alliterates with the syllables with the initial *h* before vowels, there are 4 lines where *hr* in the on-verse shows its alliteration with *hV* in the off-verse. Two lines are illustrated below:

(13) *hr* in on-verse alliterating with *hV* in off-verse

1629 Ða wæs of þæm **h**roran **h**elm ond byrne
1745 Þonne bið on **h**reþre under **h**elm drepen

There is no line that shows the *xa / ax* pattern with *hn* in the on-verse and an alliterating syllable in the off-verse, as is the case with the line of *ax / ax* pattern, while 1 line is found that shows this alliterative pattern with *hw* in the on-verse and its alliterating syllable with the initial *h*. This sample is illustrated below:

(14) *hw* in on-verse alliterating with *hV* in off-verse

2994 sealde hiora **g**hwæðrum **h**und þusenda

Finally, the data that do not point to the existence of the sound value of the initial *h* before the sonorant must be shown. All the lines of single alliteration of this type are composed of the alliteration of the same initial consonant cluster, so that they are non-decisive for the quality of the initial *h* standing before the sonorant, because their alliterations cannot be broken whether the initial *h* is interpreted as a diacritic mark indicating the voicelessness of the sonorant or not. As for the lines of *ax / ax* pattern, we can find 5 instances, all of which show the alliteration of *hr* in the on-verse with itself in the off-verse, while there is no line that shows *xa / ax* pattern in which the ‘initial *h* + sonorant’ clusters alliterate with the same.

All the lines of ax / ax pattern that do not point to the sound value of the ‘initial *h* + sonorant’ clusters are illustrated below:

(15) *hr* in on-verse alliterating with *hr* in off-verse

454 **hr**ægla selest; þæt is **Hr**ædlan laf,
1515 ne him for **hr**ofsele **hr**inan ne mehte
2010 to ðam **hr**ingsele **Hr**oðgar gretan;
2129 Þæt wæs **Hr**oðgar[e] **hr**eowa tornost
3053 þæt ðam **hr**ingsele **hr**inan ne moste

3.2. Double alliteration (aa / ax)

There are 101 lines in total which are classified into the pattern of double alliteration. In the case of this alliterative pattern, whether the glottal fricative existed in Old English initially before the sonorant as well as before vowels is judged by the following criterion: the existence of the glottal fricative even before the sonorant is verified if one of the ‘initial *h* + sonorant’ clusters or ‘*h* + vowel’ occupying the one alliterating position in the off-verse is not seen in either of two alliterating positions in the on-verse; otherwise the data fail to verify the existence of the glottal fricative standing initially before the sonorant because of its neutrality. The neutrality of the data arises because the alliterating pattern will be complete if the initial *h* before the sonorant is interpreted as merely an indicator, with no sound value, of the voicelessness of the sonorant.⁷ Accordingly, we can divide these data into two groups, one which points to the existence of the glottal fricative even before the sonorant in keeping alliteration, and the other which does not. Firstly the former type is illustrated, and secondly the latter.

⁷ If the initial *h* before the sonorant is interpreted as a diacritic mark, the following three alliterative schemes, all of which should be normally classified into double alliteration (aa / ax) if it is not a diacritic mark but a glottal fricative, must be theoretically assumed according to the alliterating manner of the line: ax / ax, xa / ax, aa / ax. The situation will be clear when one of the ‘initial *h* + sonorant’ clusters or *hV* has one alliterating position both in the on-verse and the off-verse and one of the other initial sound patterns occupies the remaining one position in the on-verse, or when all the alliterating positions are occupied by the same ‘initial *h* + sonorant’ cluster. In the strict sense, the term ‘double alliteration’ might be inapplicable to the first two theoretical patterns. In the present paper, nevertheless, these types are listed provisionally with examples of double alliteration because of the evidence presented here that the various clusters do in fact alliterate with each other.

There are 57 lines that illustrate the existence of the glottal fricative standing initially before the sonorant, 35 out of which show the pattern of ‘*h* + vowel’ occupying the alliterating positions in the on-verse and one of the ‘initial *h* + sonorant’ clusters appearing in the off-verse. It must be borne out in mind again that the alliteration of the line will be broken if the initial *h* before the sonorant is merely a diacritic mark, with no sound value, to indicate the voicelessness of the sonorant. The frequency of the appearance of each ‘initial *h* + sonorant’ cluster, *hl*, *hr*, *hn*, and *hw* is 5, 26, 2, and 2 respectively. For each case, some sample lines are illustrated below: (the left-hand side of the slash mark indicates the first alliterating position, and its right-hand the second alliterating position in the on-verse)

Double alliteration (aa / ax)

(16) *hV* / *hV* in on-verse alliterating with *hl* in off-verse

- 52 **h**æleð under **h**eofenum, hwa þæm **h**læste onfeng.
 688 **H**ylde hine þa **h**eapodeor, **h**leorbolster onfeng
 3142 **h**æleð **h**iofende, **h**laford leofne.

(17) *hV* / *hV* in on-verse alliterating with *hr* in off-verse

- 116 **h**ean **h**uses, hu hit **H**ringdene
 335 **h**eresceafta **h**eaþ? Ic eom **H**roðgares
 772 wið**h**æfde **h**eapodeorum, þæt he on **h**rusan ne feol,
 1217 **h**yse, mid **h**æle, ond þisses **h**rægles neot,
 1307 **h**ar **h**ilderinc, on **h**reon mode,
 1807 **H**eht þa se **h**earða **H**runting beran
 1889 **h**ægstealdra **h**eaþ, **h**ringnet bæron,
 2430 **h**eold mec ond **h**æfde **H**reðel cyning,
 2819 **h**ate **h**eaðowylmas; him of **h**reðre gewat
 3017 **h**abban on **h**ealse **h**ringweorðunge,

(18) *hV* / *hV* in on-verse alliterating with *hn* in off-verse

- 1069 **h**æleð **H**ealfdena, **H**næf Scyldinga,
 1114 **H**et ða **H**ildeburh æt **H**næfes ade

(19) *hV* / *hV* in on-verse alliterating with *hw* in off-verse

- 814 **h**æfde be **h**onda; wæs geh**hw**æper oðrum

1248 ge æt **ham** ge on **herge**, ge **gehwæper** þara,

There are 7 lines where *hl* or *hr* occupies the alliterating positions in the on-verse and *hV* appears in the off-verse. The frequency of the appearance of *hl* or *hr* in the alliterating positions in the on-verse is 1 and 6 respectively. Below illustrated are examples for each of these ‘initial *h* + sonorant’ clusters:

(20) *hl* / *hl* in on-verse alliterating with *hV* in off-verse

1120 **hly**node for **hl**awe; **haf**elan multon,

(21) *hr* / *hr* in on-verse alliterating with *hV* in off-verse

1017 **Hro**ðgar ond **Hro**pulf. **He**orot innan wæs

2328 **hre**ow on **hre**ðre, **hy**gesorga mæst;

2831 **hreas** on **hr**usan **hord**ærne neah.

There are 15 lines of which three out of *hl*, *hr*, *hn*, *hw*, and *hV* are occupying the alliterating positions; that is, three different initial sound patterns participate in the alliterative schemes of these lines. The alliterative schemes seen in these lines are various, so that one sample line for each alliterative pattern is illustrated below: (abbreviated forms like *hV* / *hl* ; *hr* placed before the line number are to be deciphered as follows: the left-hand side of the slash mark indicates the first alliterating position, and its right-hand the second alliterating position in the on-verse; the semicolon indicates the caesura between the on-verse and the off-verse; the right-hand of the semicolon indicates the alliterating position in the off-verse)

(22) Three different initial sound patterns participating in the alliterative schemes

hV / *hl* ; *hr* 999 **he**orras to**hl**idene. **H**rof ana genæs,

hV / *hl* ; *hn* 2544 **hilde**hlemma, þonne **hn**itan feðan,

hV / *hr* ; *hl* 2296 **hat** ond **hre**ohmod **hl**æw oft ymbehwearf

hV / *hr* ; *hw* 3005 æfter **h**æleða **hry**re, **hw**ate Scildingas,

hV / *hw* ; *hr* 548 **hea**ðogrim on**dh**wearf; **hreo** wæron yþa.

hl / *hV* ; *hr* 1897 **hl**aden **her**wædum, **hr**ingedstefna,

hl / *hr* ; *hV* 2411 **hl**æw under **hr**usan **hol**mwylme neh,

hr / *hV* ; *hl* 2935 in **H**refnesholt **hl**aforðlease.

hr / *hV* ; *hw* 2442 **hre**ðre **hy**gemeðe; sceolde **hw**æðre swa þeah

hw / hV ; hl 2642 **hwate helmberend,** þeah ðe **hla**ford us
hw / hr ; hV 152 **hwile wið Hroþgar,** **h**eteniðas wæg,

There are, however, lines that do not point to the quality of the ‘initial *h* + sonorant’ clusters, as is pointed out at the beginning of this section, owing to their neutrality. We can find 44 neutral lines in *Beowulf* where the ‘initial *h* + sonorant’ clusters are involved in the pattern of double alliteration. Three patterns of this type that are observed most frequently are *hV / hr ; hV*, *hr / hV ; hV*, and *hw / hV ; hV*. These are, of course, neutral because we can assign *ax / ax* or *xa / ax* to them respectively in the theoretical sense if the *h* standing initially before the sonorant is interpreted as a diacritic mark.⁸ As for the other alliterative schemes, the situation is essentially the same. The frequencies of appearance of *hV / hr ; hV*, *hr / hV ; hV*, and *hw / hV ; hV* are 13, 12, and 5 respectively. Below illustrated are examples for each pattern:

(23) *hV / hr ; hV*

61 **He**orogar ond **Hroðgar** ond **Halga** til;
1030 Ymb þæs **helmes hrof** **heafodbeorge**
2279 **heold** on **hrusan** **hordærna** sum,
3148 **hat** on **hreðre.** **Higum** unrote

(24) *hr / hV ; hV*

543 **hraþor** on **holme;** no ic fram **him** wolde.
1214 **hrewic heoldon.** **Heal** swege onfeng.
1914 **Hraþe** wæs æt **holme** **hyðweard** geara,
2575 **hreð** æt **hilde.** **Hond** up abræd

(25) *hw / hV ; hV*

686 on swa **hwæþere hond,** **halig** dryhten,
1448 ac se **hwita helm** **hafelan** werede,
2161 **hwatum Heorowearde,** þeah he him **hold** wære,

⁸ As has been already pointed out in the previous footnote, these alliterative schemes are theoretical possibilities. The present paper provisionally classifies these patterns into ‘double alliteration’ for the reason given in the previous footnote.

2517 **hwate helmberend,** **hindeman siðe,**

Below are some examples singled out from the other alliterative schemes. The lines where the other ‘initial *h* + sonorant’ clusters not cited in the three types above, *hl* and *hn*, are involved in the alliterative schemes, are mainly focussed here, and the last sample line illustrated below might attract our interest:

(26) *hV / hl ; hV*

912 **hord ond hleoburh,** **hæleþa rice,**
2553 **heaðotorht hlynnan** **under harne stan.**

(27) *hn / hV ; hV*

1274 **gehnægde helle gast.** **þa he hean gewat,**

(28) *hw / hr ; hr*

356 **Hwearf þa hrædlice** **þær Hroðgar sæt**

3.3. Crossed alliteration (ab / ba)⁹

There are 8 lines showing the pattern of crossed alliteration, where the ‘initial *h* + sonorant’ clusters are involved in their alliterative schemes. As is the case with the previous two alliterative patterns, single alliteration and double alliteration, we can divide the data into two types of lines, one demonstrating the existence of an *h* sound before the sonorant, and the other neutral between the two phonological interpretations. In classifying the collected data of crossed alliteration into two groups, the following criterion should be considered; a line constitutes relevant evidence if it has an ‘*h* + sonorant’ cluster in one of the b-positions and *hV* or ‘*h* + a different sonorant’ in the other. Such a combination in the a-position is not necessarily decisive, for the line might be treated as *xa / ax*, provided the first half-line conformed to the A3 type (The theoretical possibility of an *ax / xa* pattern, which would be produced in the data meeting the criterion if the initial *h* before the sonorant is interpreted as a diacritic mark, can be excluded in *Beowulf* at least).

⁹ The present paper follows Baker (2003:121) concerning definitions of crossed alliteration (ab / ba) and transverse alliteration (ab / ab).

There is only 1 line that meets the criterion and points to the existence of the glottal fricative expressed by the initial *h* before the sonorant. The ‘initial *h* + sonorant’ cluster involved in the alliterative scheme of the line is *hr*. This line is illustrated below:

Crossed alliteration (ab / ba)

(29) The line that meets the criterion

2615 brunfagne **h**elm, **h**ringde byrnan,

On the other hand, 7 lines do not meet the criterion, 3 out of which are illustrated below:

(30) The lines that do not meet the criterion

1573 **h**wearf þa be wealle, wæpen **h**afenade

1728 **H**wilum he on lufan læteð **h**worfan

2337 **H**eht him þa gewyrcean wigendra **h**leo

3.4. Transverse alliteration (ab / ab)

There are 12 lines that fall into the pattern of transverse alliteration. The ‘initial *h* + sonorant’ clusters are involved in the alliterative schemes of these lines, and the data can be classified into two groups, one demonstrating the existence of an *h* sound before the sonorant, and the other neutral between the two phonological interpretations. For the purpose of classifying the data into two groups, the following criterion should be set; a line constitutes relevant evidence if it has an ‘*h* + sonorant’ cluster in one of the a-positions and *hV* or ‘*h* + a different sonorant’ in the other. Such a combination in the b position is not decisive, for the line might be treated as *ax / ax* (The theoretical possibility of an *xa / xa* pattern, which would be produced in the data meeting the criterion if the initial *h* before the sonorant is interpreted as a diacritic mark, can be excluded in *Beowulf* at least).

There are 5 lines that meet the criterion, and the ‘initial *h* + sonorant’ cluster involved in their alliterative schemes is *hr*. All the examples are illustrated below:

Transverse alliteration (ab / ab)

(31) The lines that meet the criterion

32 Þær æt **h**yðe stod **h**ringedstefna,

64 Þa wæs **H**roðgare **h**eresped gyfen,

374 ðæm to **h**am forgeaf **H**reþel Geata

653 **H**roðgar Beowulf, ond him **h**æl abead,
 1131 **h**ringedstefnan; **h**olm storme weol,

On the other hand, 7 lines do not meet the criterion, 5 out of which are illustrated below:

(32) The lines that do not meet the criterion

88 þæt he dogora ge**h**wam dream ge**h**yrde
 98 cynna ge**h**wylcum þara ðe cwice **h**wyrfaþ.
 730 magorinca **h**eaþ. Þa his mod **ah**log;
 2030 æfter leod**h**ryre lytle **h**wile
 2726 þæt he dæg**h**wila gedrogen **h**æfde,

4. Summary and conclusion

The present paper, though experimentally, has examined so far the lines in *Beowulf* where the ‘initial *h* + sonorant’ clusters appear and are involved in alliteration in order to inspect whether the *h*, standing initially before the sonorant, is a diacritic mark to indicate the voicelessness of the sonorant or not. All the lines are grouped into four categories of alliteration, namely single alliteration, double alliteration, crossed alliteration, and transverse alliteration. Furthermore, the collected data for each category are divided into two types, the data pointing to the existence of the glottal fricative represented by the *h* standing initially before the sonorant, and the neutral data non-decisive for its sound value.

From the investigations and analyses in the previous sections, it can be concluded that the initial *h* before the sonorant is not a diacritic mark, but represents its own sound value, a glottal fricative, at least in *Beowulf*, because the majority of the lines in which the various ‘*h* + sonorant’ clusters are involved in the alliterative scheme would alliterate irregularly or not at all, if the *h* in the ‘initial *h* + sonorant’ clusters were a diacritic mark. If this were accepted, it would follow that an alliterative scheme ‘no alliteration’, regardless of its rare occurrence in Old English poetry, could very frequently occur in the particular cases where the ‘initial *h* + sonorant’ clusters are involved in the alliterative schemes of the lines, at least in *Beowulf*; this hypothesis, however, seems to be very implausible from the viewpoint of the metrical theory of Old English poetry. As for the data of crossed and transverse alliteration patterns, the great majority of the data do not prove the existence of a sound represented by the initial *h* before the sonorant. This seems to be because the criteria used for the distinction of the data are more exacting than those for the data of single and double alliteration patterns, and the

overall paucity of cases of crossed and transverse alliteration patterns affects the result. The paucity of the data concerned might be remedied when all the poetic texts are investigated and analysed.

At the end it should be noted, though self-evident, that all the poetic texts must be examined when we reconstruct through alliteration the quality and the position of the initial *h* before the sonorant in the phonological system of Old English; it is at least theoretically possible that the metrical and phonological system of *Beowulf* is different from other poems in the corpus.

Appendix: List of all the data collected and analysed in *Beowulf*

Here are listed all the data used for the analyses of the ‘initial *h* + sonorant’ clusters in *Beowulf*, edited by Dobbie (1953). The numbers are those of the lines involved in each alliterative pattern. The way of classifying the data and use of abbreviations correspond with those in the text of the paper. It should be also noted that lines that undergo emendations or restorations of the text affecting alliterative schemes where ‘initial *h* + sonorant’ clusters are involved, defective lines, and hypermetric lines are excluded from the data listed below.

Single alliteration (ax / ax or xa / ax)

(1) The data pointing to a glottal fricative

[ax / ax]

hV in on-verse alliterating with *hl* in off-verse

1415, 1731, 2375, 3020

hV in on-verse alliterating with *hr* in off-verse

339, 396, 495, 988, 1066, 1363, 1446, 1457, 1503, 1576, 1872, 1937, 2113, 2155, 2180, 2191, 2345, 2363, 2581, 2583

hV in on-verse alliterating with *hn* in off-verse

677, 952, 1327, 1929

hV in on-verse alliterating with *hw* in off-verse

146, 163, 526, 584, 1495, 1828

hl in on-verse alliterating with *hV* in off-verse

1979, 2283, 2773, 3169

hl in on-verse alliterating with hr in off-verse

304

hr in on-verse alliterating with hV in off-verse

10, 371, 456, 662, 717, 925, 963, 1236, 1296, 1321, 1399, 1407, 1483, 1507, 1580, 1592, 1687, 1769, 1801, 1840, 1862, 1899, 1970, 2358, 2561, 2840, 2960, 2992

hw in on-verse alliterating with hV in off-verse

1601, 2137

hw in on-verse alliterating with hr in off-verse

2171

[xa / ax]

hV in on-verse alliterating with hl in off-verse

864, 1892, 2634

hV in on-verse alliterating with hr in off-verse

1279, 1521¹⁰, 1659, 2809

hl in on-verse alliterating with hV in off-verse

3126

hr in on-verse alliterating with hV in off-verse

1629, 1745, 1836¹¹, 1878¹²

hw in on-verse alliterating with hV in off-verse

2994

¹⁰ There are two possible interpretations of the alliterative scheme of this line. Pope (1942) thinks that nothing in the on-verse other than a noun is involved in the alliterative scheme of the line, and that alliteration falls on the second metrical stress alone in the on-verse, while Lehmann and Tabusa (1958) think that a pronoun in the on-verse as well as a noun is involved in the alliterative scheme of this line. If we accept the opinion of Pope (1942), the alliterative scheme of this line will be xa / ax, and in the view of Lehmann and Tabusa (1958), it will be aa / ax with an anacrusis. The present paper adopts the opinion of Pope (1942), so that the line is listed here. However, we can shift this line to hV / hV in on-verse alliterating with hr in off-verse under Double alliteration, (1).

¹¹ The situation of this line is almost the same as line no. 1521 in the previous footnote. The opinion of Pope (1942) differs from that of Lehmann and Tabusa (1958) in the same way. The present paper follows Pope (1942), though we can shift the line to hV / hr ; hV under Double alliteration, (2).

¹² This line also encounters the same problem as line no. 1836 in the previous footnote. The line concerned can be shifted to hV / hr ; hV under Double alliteration, (2).

(2) The data neutral for the quality of the ‘initial *h* + sonorant’ clusters

[ax / ax]

hr in on-verse alliterating with *hr* in off-verse

454, 1515, 2010, 2129, 3053

Double alliteration (aa / ax)

(1) The data pointing to a glottal fricative

hV / *hV* in on-verse alliterating with *hl* in off-verse

52, 267, 688, 2802, 3142

hV / *hV* in on-verse alliterating with *hr* in off-verse

116, 322, 335, 540, 772, 1091, 1217, 1245, 1307, 1490, 1588, 1646, 1807, 1816, 1847,
1889, 1990, 2430, 2474, 2477, 2558, 2593, 2754, 2819, 3017, 3136

hV / *hV* in on-verse alliterating with *hn* in off-verse

1069, 1114

hV / *hV* in on-verse alliterating with *hw* in off-verse

814, 1248

hl / *hl* in on-verse alliterating with *hV* in off-verse

1120

hr / *hr* in on-verse alliterating with *hV* in off-verse

1017, 1189, 1195, 2328, 2448, 2831

Three different initial sound patterns participating in the alliterative schemes

hV / *hl* ; *hr* 999, 2351, 2805

hV / *hl* ; *hn* 2544

hV / *hr* ; *hl* 2296

hV / *hr* ; *hw* 2052, 3005

hV / *hw* ; *hr* 548

hl / *hV* ; *hr* 1897, 3034

hl / *hr* ; *hV* 2411

hr / *hV* ; *hl* 2935

hr / *hV* ; *hw* 2442

hw / *hV* ; *hl* 2642

hw / hr ; hV 152

(2) The data neutral for the quality of the ‘initial *h* + sonorant’ clusters

hV / hl ; hV 912, 2201, 2553

hV / hl ; hl 611

hV / hr ; hV 61, 124, 983, 991, 1030, 1923, 2037, 2132, 2247, 2279, 2554, 2762, 3148

hV / hr ; hr 277, 2925

hV / hw ; hV 576, 800, 2015, 2208

hl / hV ; hV 89

hr / hV ; hV 407, 543, 1022, 1202, 1214, 1302, 1343, 1914, 2045, 2245, 2270, 2575

hr / hV ; hr 1564

hn / hV ; hV 1274

hw / hV ; hV 204, 686, 1448, 2161, 2517

hw / hr ; hr 356

Crossed alliteration (ab / ba)

(1) The line that meets the criterion

2615

(2) The lines that do not meet the criterion

237, 1294, 1573, 1652, 1728, 2337, 2377

Transverse alliteration (ab / ab)

(1) The lines that meet the criterion

32, 64, 374, 653, 1131

(2) The lines that do not meet the criterion

88, 98, 730, 2030, 2397, 2726, 3074

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