JERZY WÓJCIK

OLD ENGLISH BREAKING
AS SHARING OF MELODY

1. INTRODUCTION

Although Old English Breaking (OEB) is one of the most well-studied OE changes, it still remains one of the most controversial ones, as a substantial range of disagreement exists among scholars on almost all aspects of this change. In this paper we shall attempt to provide an account of OEB expressed in a CVCV framework of Government Phonology (cf. LOWENSTAMM 1996; CYRAN 2003; SCHEER 2004). The discussion is organised as follows: section 2 offers an overview of OEB concentrating on those aspects of the process which provoked most controversy in the literature, section 3 presents a CVCV analysis of OEB; finally, section 4 presents some conclusions.

2. MAJOR AREAS OF CONTROVERSY
OVER OLD ENGLISH BREAKING[1]

In the traditional handbook analysis (cf. LUICK 1964 §§ 133-153, CAMPBELL 1959 §§ 139-153, HOGG 1992 §§ 5.19-5.27) OEB is a diphthongisation process affecting both the short and the long front vowels of OE, whereby short and long /i, e, æ/ diphthongise when immediately followed by /rC/, /lC/ or /h(C)/. Consider the data in (1) illustrating the operation of OEB in the West-Saxon dialect of Old English.

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[1] For a detailed discussion of the most controversial aspects of OEB see Lass and Anderson (1975), Stockwell (1996), or more recently White (2004), Smith (2007).

(1)

		<æ →ea>	<e → eo>	<i →io → eo>[2]
context	rC	*bearn* (Goth.barn) 'child'	*sweord* (OS swerd) 'sword'	*heorde* (OHG hirti) 'shepherd'
	lC	*eald* (OHG alt) 'old'	*seolh* (Goth. selhs) 'seal'	*filhÞ* (<i-umlaut of *fiulhiÞ) 'it sticks'
	hC	*eahta* (OHG ahto) 'eight'	*feohtan* (OHG fehtan) 'fight inf.'	*teohhian* 'consider, inf.'
	h	*seah* (OHG sah) 'he saw'	*feoh* (OS fehu) 'money'	*tēon* (<tīhan) 'accuse'

As we noted at the outset, OEB has been the subject of one of the most complex debates in Old English studies with the dispute concentrating on three major aspects of OEB – the effects of the change on the phonemic inventory of the language, the nature of the conditioning environments, and the mechanism of the change. Let us now briefly review each of these points.

The traditional view (cf. BŰLBRING 1902, LUICK 1964, CAMPBELL 1959, BRUNNER 1965, KUHN AND QUIRK 1953, 1955, HOGG 1992) maintains that OEB of short vowels produces short diphthongs, while the outputs of long vowel diphthongisation merge with the original diphthongs inherited from WGmc. As a result, OEB is responsible for the emergence of the vocalic system of OE, where both simple vowels and diphthongs display length contrast. The most important argument in favour of the traditional view comes from the fact that the reflexes of the assumed short diphthongs point to a diphthongal source (e.g. eorl → Yorlwick, earn → Yarnicombe, cf. SAMUELS 1952) and the eME development of short and long <eo>, which give /ø/ and /ø:/ contrasting with the eME development of OE /e/ and /e:/ (cf. HOGG 1992: §2.23). The traditional view was first questioned by Daunt (1939), who claimed that the second element of the digraph spellings was a mere diacritic indicating the back quality of the following consonant,[3] the practice introduced apparently under the influence of Old Irish scribal conventions. Similarly, Stockwell and Barritt (1951, 1955) or Stockwell (1996) argue that the second element of the alleged diphthongs was diacritical but claim that the purpose was to mark the

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[2] The vowel /i/ is broken into a diphthong spelled <io>, which later merges with <eo>.
[3] This view has been recently rehearsed again in White (2004).

retracted allophone of the relevant front vowel. Hockett (1959), on the other hand, claims that the relevant spellings were phonemic but instead of representing diphthongs they indicated centralised vowels. The major argument put forward by the opponents of the traditional view is essentially typological and rests on the assertion that the phonemic contrast between short and long diphthongs is extremely rare.[4]

The second area where considerable difference of opinion exists concerns the nature of the environments which condition OEB. There are two aspects involved. First, the phonetic characterisation of the environments that cause OEB. The traditional answer is that the environments for OEB i.e. /r, l, x/ are all back (see, for example, Lass and Anderson 1975, Lass 1994: 49, Davenport 2005). For this reason it was assumed that /r/ in the environment for breaking was realised phonetically as a uvular trill [R] or uvular fricative [ʁ], /l/ was assumed to be 'dark' [ɫ], the velarity of /x/ being self-evident. A different opinion regarding the phonetic realisation of the consonants that cause OEB is expressed in Howell (1991). On the basis of comparative evidence adduced from the modern Germanic dialects, the author claims, challenging the traditional view, that the consonants responsible for OEB were the glottal fricative [h] and the apical trill or flap [r][5]. Nevertheless, he further assumes that [h] and [r] had some back features (e.g. pharyngeal constriction, Howell 1991: 107), which practically reduces the difference between Howell's view and the traditional approach to a matter of fine phonetic detail. The second aspect where difference of opinion regarding the context for OEB is clearly visible is the inclusion or exclusion of /w/ as a possible trigger of the change. On the one hand, there is a long scholarly tradition represented by Luick (1964), Campbell (1959), Hogg (1992), Suzuki (1994) of treating /w/ as one of the contexts that cause OEB. On the other hand, Brunner (1965), Fulk (1992), Lutz (1991), Smith (2007) argue against the traditional assumption of breaking before /w/.

Thirdly, scholars disagree as far as the exact mechanism of the change is concerned. Traditionally, OEB was seen as an insertion of the back vowel /u/ between the front vowels and the triggering consonants. As Campbell (1959)

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[4] It has to be noticed, however, that this argument is considerably weakened by the existence of languages displaying short/long diphthong contrast even within the Germanic family. See, for example Lass (1994) or Gussmann (2002), where it is claimed that Icelandic, Afrikaans or even some varieties of Modern English possess the contrast in question.

[5] Howell (1991) assumes, in accordance with tradition, that /l/ in the context for OEB represented dark [ɫ].

puts it, front vowels are "protected from the following consonant by the development of a vocalic glide". More recently, however, a different interpretation received a degree of acceptance, whereby OEB is seen as a weakening of consonantality of the triggering consonants, as a result of which the consonant vocalises (or develops a more vowel-like variant) with a concomitant back glide developing as a second element of the affected vowel. This is the view expressed in Howell (1991), Jones (1989), Lutz (1991), Suzuki (1994), and severely criticised in Stockwell (1996), who calls it "the New Orthodoxy" and launches a frontal attack on it.

Having presented the major areas of disagreement concerning OEB, let us now take a closer look at how this change can be expressed in terms of strict CVCV framework.

3. OLD ENGLISH BREAKING IN CVCV FRAMEWORK

The theoretical model we adopt is that of CVCV phonology, which constitutes a development of Government Phonology that emerged from the works of Lowenstamm (1996), Scheer (1998, 2004), Rowicka (1999), Cyran (2003) and others. The model assumes the strict CVCV constituent structure allowing only sequences of non-branching onsets and non-branching nuclei. In what follows we assume Scheer's analysis of the behaviour of sonorants in Coda position (SCHEER 2004:707-744). Before embarking on an analysis of the OE data, let us first discuss the most important points of Scheer's approach.

The crucial aspect of Scheer's analysis (cf. SCHEER 2004: §594) is the assumption that coda consonants are found in inherently weak positions as they are followed by a governed empty nucleus which can neither govern nor license them. The relevant configuration is provided in (2), which depicts a situation in which a sonorant is a member of a cluster it forms with a following obstruent.
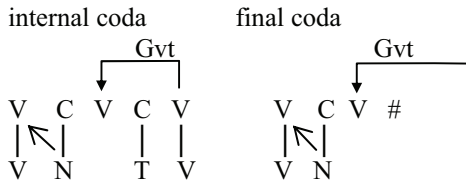
(2)
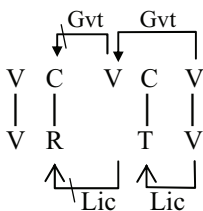
R – any sonorant, T – any obstruent
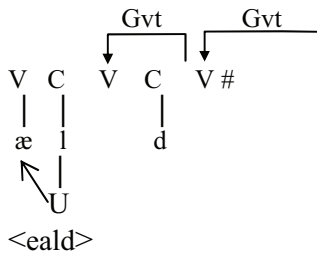← government ⇐ licensing

Scheer (2004:707-744) works out what he calls a unified theory of the behaviour of sonorants in Coda position. Under this theory a wide range of phenomena, usually not assumed to share common features, may be interpreted as originating from the same causality. For example, the rise of nasal vowels, the rise of syllabic consonants, the nasal-obstruent homorganicity, and a range of lenition phenomena experienced by sonorants (e.g. dark [ɫ] in codas) are viewed as the result of the weakness of sonorants in the Coda. According to Scheer, the sonorant under the pressure of the weakness of Coda position can react in one of the three ways: 1) the sonorant shares its melodic primes with the neighbour and thereby achieves a branching status;[6] 2) the sonorant spreads onto a syllabic position of a neighbouring segment and achieves a branching structure; 3) the sonorants does not succeed in spreading or sharing its melody, which results in lenition (i.e. releasing some of its melodic primes). By way of illustration consider the representations in (3) depicting the rise of nasal vowels in reaction to the weakness of a nasal in Coda position.

(3)

internal coda   final coda

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              Gvt                      Gvt
          ┌─────────┐              ┌──────────
          ↓         │              ↓
  V   C   V   C   V          V   C   V   #
  │  ⟍│       │   │          │  ⟍│
  V   N       T   V          V   N
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Let us now see how the analysis of sonorants proposed by Scheer (2004) can be extended to the analysis of OEB. Consider the representation in (4) illustrating the operation of breaking in OE *eald* 'old' ← *æld*.

(4)

```
          Gvt           Gvt
      ┌────────┐   ┌─────────
      ↓        │   ↓
  V   C    V   C   V   #
  │   │        │
  æ   l        d
  │
  ⟍
    U
  <eald>
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[6] It is assumed that sharing some (or all) of segment's melodic primes makes it stronger and releases some of its positional pressure. Note, for example, the well-known immunity of geminates to lenition, which can be seen as following from their strength resulting from the sharing of melody.

Notice that the element U defining the velar place of articulation is assumed to be present in the phonological make-up of /l/ in the Coda position, resulting in the dark quality of the consonant [ɫ]. As envisaged by Scheer's analysis, the consonant shares the element U with the preceding vowel in a reaction to the weakness of its position, which results in the modification of the pronunciation of a vowel traditionally referred to as "breaking". This interpretation of OEB seems to offer a possibility of shedding new light on the kinds of questions we discussed in section 2 above. Clearly, the analysis under (4) is in the spirit of Howell (1991), Jones (1989) and Lutz (1991) since the process is seen as resulting from the weakening of the consonant in the coda. Note, however, that the process as represented under (4) does not involve the insertion of a back glide or element of any kind. Recall that the insertion of a back glide is what traditional accounts claim about the nature of OEB. Insertion is also assumed under Howell's analysis, where a consonant vocalises (or develops a more vowel-like variant) with a concomitant back glide developing as a second element of the affected vowel. It is this aspect (the insertion of a glide) of Howell's analysis that got most severely criticised by Stockwell (1996) on the grounds that the sounds which are created by OEB pattern with short vowels, whereas the insertion of a glide should result in the creation of an extra slot, and this in turn should produce a bimoric diphthong, which would be expected to pattern with 'ordinary' i.e long OE diphthongs. Stockwell (1996) notices further that the consonants that trigger OEB do not vocalise as they are clearly preserved in later stages of the language. The analysis presented under (4) avoids these problems. The sonorant [ɫ] seeks to share some melodic primes with its neighbour, which results in the modified realisation of the vowel, but no insertion of a glide or creation of skeletal positions occurs. In this sense the process of OEB did not involve diphthongisation, rather the vowel acquires an extra prime (U), which may be perhaps expected to be interpreted as retraction of the affected vowel. At the same time the element U, which the vowel affected by OEB shares with the following consonant, may have been reinterpreted at some later stage as forming part of a phonological make-up of the vowel itself. This might help to explain why eME reflexes of the vowels affected by OEB contrast in their development with the eME reflexes of OE /e/ and /e:/ unaffected by OEB, one of the traditional arguments supporting the reality of diphthongisation caused by OEB.

Let us now see how the proposed interpretation of OEB can be extended to the analysis of some other OE words we presented in (1). Consider the representations in (5) depicting OE *bearn* 'child' and *eahta* 'eight'.

(5)
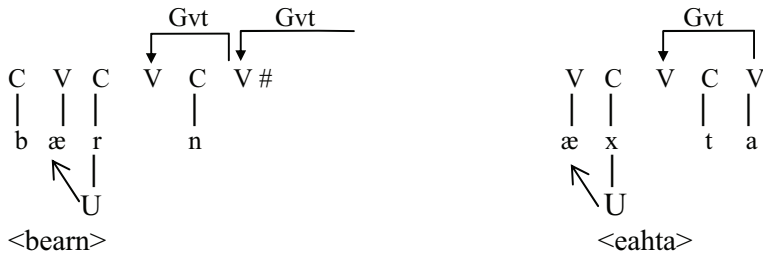
As can be seen, the mechanism we proposed in (4) can also be invoked in the case of OE *bearn* 'child' and *eahta* 'eight'. Of course the assumption inherent in (5) is that both /x/ and /r/ contained the element U when situated in Coda position, which is made available for sharing with the preceding vowel.[7]

An important question which has to be asked at this point is why OEB did not affect vowels when they were followed by a single /r, l/ (as in *wer* 'man', *wæl* 'slaughter'), and why /x/ was capable of causing OEB on its own (*seah* 'he saw'). As far as the behaviour of /l, r/ is concerned, what seems to be the case is that the final Coda position was stronger in OE than the internal coda. This effect can be derived from the assumption that OE word-final empty nuclei (unlike word-internal empty nuclei) can dispense both government and licensing (see SCHEER 2004:625-664). What follows is that a word-final consonant in OE will find itself in a stronger position than a consonant in an internal coda position. Consider the representations in (6), where it can be assumed that the consonants do not react (i.e. they do not share their U elements with the preceding vowel) because they receive additional support through licensing by the final empty nucleus.

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[7] Of course our interpretation of the forms in (5) entails an extension of Scheer's (2004) analysis to non-sonorants (OE /x/). Observe, however, that the crucial aspect of the analysis is the weakness of the position in which the consonant is found: if the position is inherently weak, effects in the form of sharing/spreading/lenition can be expected of other types of consonants as well. At least this is what seems to be going on in Old English.

(6)

```
            Gvt                              Gvt
          ┌──┐                             ┌──┐
          ↓  │                             ↓  │
     C  V  C  V #                     C  V  C  V #
     │  │  │                          │  │  │
     w  e  f──┐                       w  æ  ʎ──┐
          │    Lic                          │    Lic
          │                               │
          U                               U

        <wer>                            <wæl>
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In light of the above analysis the behavior of /x/ comes across as particularly striking as it is the only consonant capable of inducing OEB on its own both word-internally (*slēan* ' slay' ← **slahan*) and word-finally (*seah* 'he saw' ← **sah*). One suggestion which can be made here is that in the case of /x/ the support in the form of licensing it receives from the word final empty nucleus (or the following expressed vowel if it finds itself in the intervocalic position as in *slean* ← *slahan*) does not seem to be enough to stop the sharing of the element U with the preceding vowel. This, in turn, may be regarded as following from the inherent weakness of this consonant, perhaps the weakest one in the phonological system of OE. This conclusion finds independent support in the behavior of OE /x/ – the only consonant that shortly after the operation of OEB lenites completely in intervocalic position (cf. CAMPBELL 1959, HOGG 1992), resulting in well-known OE alternations of the form *seolh* – *sēolas* 'seal – nom.pl'. The behavior of /x/ is represented in (7) below, both for the word-final (*seah* 'he saw' ← **sah*) and inter-vocalic configuration (*slēan* 'slay' ← *sleahan* ← *slahan*).

(7)

```
          Gvt                                Gvt
        ┌──┐                               ┌──┐
        ↓  │                               ↓  │
   C  V  C  V #                   C  V  C  V  C  V
   │  │  │                        │  │  │  │  │  │
   s  æ  h                        s  l  æ  h  a  n
        └─┐                             └─┐
       ↗ ↑ ┐                          ↗ ↑ ┐
        U  Lic                          U  Lic

     <seah>                          <sleahan>
```

4. CONCLUSION

In this paper we provided a CVCV analysis of Old English Breaking following the ideas developed in Scheer (2004). Specifically, we applied his analysis of the universal behavior of sonorants in Coda position to the OE data provided by the operation of OEB. The proposal we made is in the spirit of Howell (1991), Jones (1989), Lutz (1991), and Suzuki (1994), as it views OEB as a change which stems from the weakening of the triggering consonant. The nature of this weakening, however, is different than in earlier approaches and consists in the sharing of melody between the weak consonant and the adjacent vowel. It is this sharing which was interpreted as a phonetic modification of the vowel reflected in OE 'digraph' spellings.

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STAROANGIELSKA ZMIANA JĘZYKOWA 'BREAKING'
JAKO DZIELENIE ELEMENTÓW MELODII

S t r e s z c z e n i e

Artykuł przedstawia analizę staroangielskiej zmiany językowej 'Breaking' z punktu widzenia teorii fonologii rządu w ujęciu Scheera (2004). Najistotniejszym elementem przedstawionej analizy jest założenie, że staroangielski 'Breaking' to zmiana, która zachodziła w wyniku uniwersalnego osłabiania spółgłosek znajdujących się w wygłosie sylaby (czyli, w przyjętym modelu, bezpośrednio przed nielicencjonowaną i nierządzoną pustą pozycją samogłoskową). W rezultacie tego osłabiania następuje dzielenie elementów melodii pomiędzy spółgłoską i samogłoską, co w rezultacie wpływa na modyfikację samogłoski.

Streścił Jerzy Wójcik