KAROLINA DRABIKOWSKA

LANGUAGE CHANGE
WITHIN THE THEORY OF GOVERNMENT PHONOLOGY

Abstract. The present paper is concerned with phonological change from the point of view of Government Phonology, as defined by Kaye, Lowenstamm, Vergnaud (1985, 1990), Harris (1994), Cyran (1997, 2010), Gussmann (2002) and Bloch-Rozmej (2008) among others. The research has a form of a diachronic case study, namely the case of the Early Middle English development, traditionally referred to as the elimination of the front rounded vowel in four dialects of Middle English, that is, the East Midland, the North, the West Midland and the South Western dialects. The process disposing of OE /y/ deserves closer attention since it is characterised by a great complexity. In the majority of cases the high front rounded vowel was simply unrounded regardless of the context. In this case we might argue that the palatal element was retained, while roundness was removed. However, especially crucial for the analysis is the change which distinguishes the latter two dialects, namely lOE /y/ → eME /u/ in palatalised environment in the West Midlands and the South West. What is particularly interesting is the fact that the palatal element I in IOE /y/ is not preserved in palatalised context. Conversely, it is roundness that is preserved rather than the palatal element. A closer scrutiny of historical data allows us to determine the role of a licensing constraint and a revised version of the Obligatory Contour Principle in these developments as well as to discover the limitations imposed on both of the abovementioned processes by headedness and constituency.

Key words: Early Middle English, phonological change, vowels, element function.

1. INTRODUCTION

No analysis of the phonology of Present Day English, or at least its standard, can be carried out without stating that English phonological system is devoid of front rounded vowels. Similarly, no inquiry into the history of the English language can include this apparent statement without mentioning
that these vowels were, in fact, present in the phonology of Old English and at the beginning of the Middle English period. Moreover, the elimination of front rounded vowels differed from dialect to dialect with respect to the period and the final result of the change. The change has been thoroughly described in both older and newer traditional textbooks and grammars (see Sweet (1874), Brunner (1979), Jordan (1974), Welna (1979), Lass (1992b), Fisiak (1996), Barber et al. (2009), among others). According to these accounts, it took approximately five centuries for English to dispose of these sounds altogether. First modifications are observed in the Kentish dialect in the 9th century and some front rounded vowels seem to be still present in the South West in the 14th century. However, the loss of front rounded vowels in the history of English still poses some questions and raises doubts whether we understand this change. This paper addresses the problem of the elimination of a high front rounded vowel in four Early Middle English (eME) dialects (the South West, the East Midlands, the West Midlands and the North) within the standard Government Phonology.

2. LOSS OF THE SHORT HIGH FRONT ROUNDED VOWEL IN THE EARLY MIDDLE ENGLISH DIALECTS

In this part we will present the data illustrating the change in question. As far as the graphic representation of the high front rounded vowel is concerned, the graph <y> was used. After the unrounding we can find both <y> and <i> as well as occasional <u> in Middle English (see Lass (1992b: 37–38, 53–56)). Let us now focus on the outcome of the change in each of the four dialects, namely in the East Midlands and the North (section 1.1), the West Midlands and the South West (section 1.2).

2.1. THE EAST MIDLANDS AND THE NORTH

The dialects in which the change appears to be the most straightforward are the East Midlands and the North, where the vowel invariably lost its roundness. Let us consider the following examples:2

---

1 It will be also used as a representative of Late Old English (lOE) sound.
2 Unless indicated otherwise, the examples used in the remainder of the paper are adapted from The Exeter Book, Layamon’s Brut and Oxford English Dictionary (henceforth OED). The sets of examples are supplemented with data from Welna (1978: 83, 86–89), Jordan (1974: 68–72)—individual cases will be marked (W) and (J) respectively.
LANGUAGE CHANGE WITHIN THE THEORY OF GOVERNMENT PHONOLOGY

(1) /y/ → /i/ as in:
- pitt (pytt IOE) ‘pit’ (W), flight (flyht IOE) ‘flight’ (W), gilt (gylt IOE) ‘guilt’ (W),
- stire (styrian IOE), ‘stir’ (W), bisi (bysij IOE) ‘busy’ (W), brigge (brycg IOE) ‘bridge’ (W), kichene (cycene IOE) ‘kitchen’ (W).

As can be seen above, Late Old English /y/ became unrounded, regardless of the context. Hence, in traditional terms, the rounded front high vowel becomes front high. What is preserved here is roundness of the vowel, it can then be claimed that frontness is the “safe” feature here. Nevertheless, before any further assumptions are made, we need to consider data from the other dialects, where the change is of a greater complexity.

2.2. THE WEST MIDLANDS AND THE SOUTH WEST

Although in the West Midlands and the South West the high front rounded vowel /y/ was unrounded to /i/ considerably later, i.e. in the 14th century, it preserved its roundness and was retracted to /u/ in the context before palatalised consonants already in the 12th century, as can be seen in (2).

(2) /y/ → /u/
- before /ʃ/, as in: blusche (blysčan IOE) ‘blush’ (W), rush (rysčė IOE) ‘rush’ (W), prusch (prysčė IOE) ‘thrush’ (W);
- before /dʒ/, as in: brugge (brycgan IOE) ‘bridge’ rugge (hrycgje IOE) ‘rigde’,
- cuggel (cyčgel IOE) ‘cudgel’ (W);
- before /lʃ/, as in: swulc(h)/sucche (swylč IOE) ‘such’, wulche (whylč IOE) ‘which’,
- mulsh (mylsč IOE) ‘mulsh’ (W), uch (ylč IOE) ‘each’ (J);
- after /ʃ/, as in: shutylle (sčytel IOE) ‘shuttle’ (W), schutte (sčyttan IOE) ‘shut’ (W).

Here we observe a situation which is to a certain degree different to the one in the North and the East Midlands. It is roundness of the sound that appears to be the “safe” feature, i.e. the one which remained present while frontness was lost. Moreover, particularly interesting is set (2d), where palatalised consonants are not strictly adjacent to the affected vowel.
Having presented the data concerning the short vowels, let us now concentrate on the long ones. At this stage of the English language history it is assumed that the difference between long and short vowels was purely quantitative. As a result, except for the length, there was no further difference between long and short equivalents. Since the change eliminating front rounded vowels concerns only the qualitative aspect, we might expect a similar process to occur when applied to the long vowels. On the contrary, to a certain degree the situation is different. The long front rounded vowels were unrounded similarly to their short counterparts, with one exception, that is, long vowel /y:/ was always unrounded to /i:/ in all of these these four dialects. Also in the context for shortening of long vowels, i.e. before two consonants and before two unaccented syllables, /y:/ yielded short front vowel /i/, as in (3) – the same result as the shortening of /i:/—between 10th and 12th century.

(3) /y:/ → /i/ as in:

The table below summarises all the changes mentioned so far.

<table>
<thead>
<tr>
<th>Palatalised context</th>
<th>The North and the East Midlands</th>
<th>The South West and the West Midlands</th>
</tr>
</thead>
<tbody>
<tr>
<td>IOE /y/ → eME /u/</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The table below summarises all the changes mentioned so far.

<table>
<thead>
<tr>
<th>Non-palatalised context</th>
<th>IOE /y/ → eME /i/</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Shortening context</th>
<th>IOE /y:/ → eME /i/</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Non-shortening context</th>
<th>IOE /y:/ → eME /i:/</th>
</tr>
</thead>
</table>

What might seem peculiar is the fact that in the shortening process /y:/ was shortened to /i/, not to /u/ also before /ʃ/ as in wishte ‘wish’. As we shall argue in the following sections, the lack of influence of this palatalised
sound on the preceding vowel (as in (3)) as well as the presence of this influence in the case of a non-adjacent palatalised consonant (as in (2d)) might be explained in terms of constituency. Before we continue the further analysis of these phenomena, let us familiarise ourselves with the assumptions and concepts proposed by Government Phonology.

4. GOVERNMENT PHONOLOGY

The theoretical model that we will adopt in this paper is Government Phonology (GP), as defined by Kaye, Lowenstamm, Vergnaud (1985, 1990), Charette (1991), Harris (1994), Harris and Lindsay (1995), Kaye (1990a,b, 1992, 1995), Brockhaus (1995), Cyran (1997, 2007), Gussmann (2002), Bloch-Rozmej (2008), in which syntagmatic relations play the most important role in the principle-based representation of phonological processing. The most characteristic traits of the representation can be summarised in three words: non-derivational, non-linear and hierarchical. It consists of three basic layers. These are: the higher syllabic structure, the skeletal level and the melodic level, as in the English word comedy:

(4)  

As far as syllabic structure is concerned, there are three constituents: the onset (O), the rhyme (R) and the nucleus (N). The nucleus might form the rhyme by itself or together with the rhymal complement (traditionally referred to as the coda for the sake of brevity). All constituents are maximally binary branching, therefore, under each constituent we can associate no more than two skeletal slots (x). The approach adopted in this paper also follows the one presented by Harris (1994:162), Kaye (1990a) and Harris and Gussmann (1998), which is based on the assumption that **Final-empty-nucleus parameter** might allow final nuclei to be licensed, therefore, final consonants are not codas, but onsets followed by empty nuclei.

The core notions of GP are licensing and government—the relations between units in the syllable structure. The former is defined by Harris
KAROLINA DRABIKOWSKA

(1994: 148), who claims that the syllable is a hierarchy of elements, whose realisation is dependent on the element situated immediately above in the structure. Therefore, what has to be emphasised is that some elements might exist in the structure, but if they are not licensed, they are not manifested phonetically. The latter relation, the one that gave its name to the theory, is a restrictive licensing device. It imposes constraints on the syntagmatic relations, that is, it limits the combinations of segments. There are three basic governing domains: within the onset, within the nucleus and between the onset and the preceding rhymal constituent. The key feature of government is asymmetric directionality—within constituents government is head-final or head-initial (subject to language specific parameter), between constituents it is head final. As Harris (1994: 149) describes this relation in English, “the position on the left enjoys a greater degree of distributional freedom than its sister.” Thus, the head (or governor) imposes certain phonotactic conditions on the governed, whose distribution is in consequence limited.

To represent sounds GP employs Element Theory and utilises a small set of primes. The elements in question are, as opposed to features, privative and autonomous. Their privativeness manifests itself in the fact that phonological representation may only refer to the presence or absence of a given prime, not to its positive or negative value. Autonomy, in turn, allows the element to be phonetically realised on the condition that it is associated to a skeletal position.

As far as the elements representing vowels are concerned, there are three basic resonance primes involved, namely I, A and U. As they are immediately pronounceable when attached to a skeletal slot under a nuclear constituent, they correspond to the corner vowels /i/, /a/ and /u/ respectively. Thus, I is an emblem of front, A of non-high, and U of rounded vowels. When situated under the onset they represent palatal, coronal and labial consonants respectively. The elements may also combine to form compounds, for example, a fusion of A and I creates a representation of vowel /e/. Apart from that, elements may coexist in an asymmetric relation, that is, one of the elements may be the head, the other elements functioning as the operators. Headedness itself is another powerful tool in the phonological representation, since not only might it express the dominance of one element over the other, but also, as expressed by Bloch-Rozmej (2008: 169), the head might “impose certain limitations on the intra-segmental combinability of primes.”
The melodic level is divided further into tiers on which the elements reside. Thus, each prime is situated on its own autosegmental layer. One of the processes involving the above mentioned layers is tier conflation proposed in Kaye, Lowenstamm and Vergnaud (1985), who claim that “in certain systems lines can be fused. In such cases two lines combine to form a single line.” As a result, the elements which belong to the two fused lines may not combine. This proposal is questioned by Bloch-Rozmej (2008: 56–57), who observes that the conflation of tiers in one system must involve the lack of combinability of the residing elements in both vocalic and consonantal expressions, which is not applicable to all systems (e.g.: Connemara Irish, see evidence in Bloch-Rozmej (1998) and (2008)). Combinability restrictions might then be expressed by so-called licensing constraints, that is, the limitations on autosegmental licensing and combinability of primes.

Another process involving a restriction on the co-occurrence of primes is the Obligatory Contour Principle. It is a device defined by McCarthy (1986: 208):

(5) **Obligatory Contour Principle**

At the melodic level, adjacent identical elements are prohibited.

Contrary to what its name suggests, the OCP cannot be considered a principle, as it is subject to multiple violations. The counter examples of the restrictive nature of the OCP were presented in numerous works (for instance, in Odden (1986)). Taking into consideration the fact that dissimilation itself is a rare phenomenon (as compared to, for example, assimilation), we would like to refer to the OCP as a language/dialect specific condition. Thus, not only is the OCP facultative, but it also non-universal (as opposed to principles). As a result, in the vein of Guy and Boberg’s (1997: 161) proposal to rename the acronym as “optional contour preference,” in the final part of the paper we will refer to it as the OCP condition (OCPC). We would like to claim that the OCPC operates in a particular dialect and in a very specific context, which in reference to Early Middle English will be discussed further in this paper.

### 5. LOSS OF THE HIGH FRONT ROUNDED VOWEL IN THE LIGHT OF GP

In terms of Element Theory, if we adopt the view of Harris and Lindsay (1995: 51), /y/ is represented as I.U. Hence, the change might be interpreted
as delinking of \( U \) from the compound structure, yielding a representation where a single element \( I \) is attached to the slot. As far as the adjacent melodies are concerned, the most immediate conclusion which can be drawn from the surface analysis of the data is the fact that there is no specific context in which the change proceeded. It does not seem to be induced by any particular element referring to the place or manner of articulation in the adjacent segments. However, the closer scrutiny of intra-segmental functions of the elements, which result in operations at the melodic level, might reveal the nature of this Early Middle English modification. However, let us first focus on the change in the West Midlands and the South West, i.e. \( /y/ \rightarrow /u/ \), as in (2).

It can be argued that it was the element \( I \) that was delinked. The resulting sound have a simple structure with only \( U \) at the melodic level. In contrast to the North and the East Midlands, the neighbouring sounds, or their melodic content, seem to be of a great importance in the West Midlands and the South West. The possible trigger could be found in the adjacent segments, namely palato-alveolar (specified by \( I \) for the secondary place of articulation), where the presence of palatal prime and the Obligatory Contour Principle would induce dissimilation. As a result, \( I \) is delinked and roundness preserved in the preceding segment. In the following section, further analysis will be conducted with the use of the most relevant examples and with respect to the licensing constraints.

6. LICENSING CONSTRAINTS AND REVISED OCP AS MECHANISMS OF SOUND CHANGE

Let us start the discussion with the nature of the change in the North and the East Midlands (henceforth NEM) \((/y/ \rightarrow /i/)\) and why it is different from the South West and the West Midlands (henceforth SWM) \((/y/ \rightarrow /i/ \text{ vs. } /y/ \rightarrow /u/)\). The traditional explanation of the lack of front rounded vowels in English is proposed in Kaye, Lowenstamm, Vergnaud (1985: 308), who claim that “fusion of the back and round lines [...] renders the combination of \( I \) and \( U \) impossible”, where back and round lines refer to tiers on which these two primes reside. Since the combination was possible in Old English, the change in question must have involved an introduction of the licensing constraint: “\( U \) and \( I \) may not combine.”

When we regard the change in the South West and the West Midlands, that is, OE \( /y/ \rightarrow ME /u/ \), as a context motivated change, the mechanism
responsible for the delinking of I before palatalised sounds, that is, the one disposing of two similar sounds next to each other, seems to be the OCP. According to the traditional version of the OCP, two segments that contain the same element are not allowed. It neatly accounts for the change in the NEM, where the OCP blocks delinking of U before I-containing segments to avoid adjacency of the same elements, as represented in (6):

\[
\begin{array}{c|c|c|c|c}
\text{I} & \text{I} & \text{OCP} & \neq & \text{I} \\
\text{U} & \text{A} & \text{I} & \text{I} & \\
\end{array}
\]

However, at this point a complication emerges. To wit: why in the NEM U is always the prime delinked from the segment, while in the SWM it is not delinked if there is a palatal prime in the following segment? Since the licensing constraint “U and I may not combine” and the traditional OCP does not fully explain the superiority of I to U elsewhere, not only might the answer to this question reveal the status of each of the elements, but it might also display the characteristics of the before mentioned OCPc itself.

The result of the licensing constraint “U and I may not combine” is the following: if the language used sounds which consisted of both primes, one of them must have been delinked from the structure. It appears that in the NEM U prime “surrendered” to I, yielding /i/. Therefore, the question arises what mechanism lies behind the selection of primes. The answer to this problem has to be searched in the status of primes in front rounded vowels in Late Old English. We can tentatively assume that the element I has the function of the head in the segment, hence the representation I.U. As heads dominate their operators (or dependents), they have a greater power to preserve their existence in the structure and, according to Bloch-Rozmej (2008: 342), “the head can refuse to combine with certain primes.” In the case of dominance of I over U, delinking of the dependent is a natural consequence. The same rule seems to apply to the elimination of U from I.A.U representation of /ɔ/. The unstable status of “overcrowded” segment resulted in the elimination of the element U, whose weakness stems from the fact that it was disfavoured by the head. However, let us first consider the following examples and their representations:
The example in (7a) shows that the palatalised sound is situated under the onset and in (7b) it is in the rhymal complement. What might be noticed is the fact that there is a special requirement that needs to be met. To wit, to trigger the change /y/→/u/ the element I in the consonantal segment must belong to the onset (as in (7a)), which is a strong position in contrast to the rhymal complement (as in (7b)), which, in turn, as a weak position does not trigger the OCP. Thus, we might formulate the OCP condition as follows:

\[\text{(8) OCP condition for Early Middle English:} \]

If I.U is followed by an I-containing strong position (Onset), I is deleted from a vocalic segment attached to one slot.

In the above condition two stipulations are made. Firstly, the two positions involved must be strong. The OCPc does not apply to the coda, since, as a non-constituent, it is a weak position. Secondly, it affects only short vowels. Furthermore, the condition allows for the existence of such forms as such (from swylčé), mulsh (from mylsčé) and uch (from ylčé) without referring to the deletion of /l/ in order to account for the influence of a non-adjacent segment, as in (9):

\[\text{(9) wulche (whylčé IOE) ‘which’} \]

We can then draw a tentative conclusion that, at least in Early Middle English, the elements attached to the rhymal complement did not enter the relation with the nucleus as far as the OCPc is concerned, and that the OCPc
disregards the rhymal complement as if it was transparent. We might argue even further that it is yet another piece of evidence that the rhymal complement should be denied a constituent status.

7. CONCLUSIONS

To sum up, the elimination of front rounded vowels seems to have involved two phenomena. One of them is the licensing constraint, whereby the element $I$ and element $U$ could not be both present in the representation. The preference of $I$ stems from its function as the head in the combination $I.U$, which contributes to its resistance to delinking. The other phenomenon is the OCP condition, which, despite the headedness of $I$, contributes to the preservation of $U$ in the representation in palatalised environment.

Furthermore, not without significance remain the constituents to which melodies belong. In the case of this Early Middle English dissimilation, there is the requirement that the triggering element resides under the onset, which, in contrast to the rhymal complement, has a constituent status, and hence, the greater strength as well as the ability to enter relational processes.

REFERENCES

PRIMARY SOURCES


SECONDARY SOURCES


ZMIANA JĘZYKOWA
W ŚWIETLE FONOLOGII RZĄDU

Streszczenie


Streściła Karolina Drabikowska

Słowa kluczowe: wczesny średniioangielski, zmiana fonologiczna, samogłoski, funkcja elementów.