

HISTORICAL PHONOLOGY AND MARKEDNESS¹

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There is no generally accepted definition of markedness which holds true for all levels of linguistic description. A physiological correlate may be found in phonology and morphology, where an additional feature or morpheme is usually regarded as marked (see below, Hyman 1975:145f.). In all other fields of linguistic study markedness (or its opposite) is conditioned by cognitive factors and ascribed to syntactic or semantic phenomena on a fairly intuitive basis. One may even speak of a 'markedness of preference'. Thus Radford's definition may be especially true for syntactic features: "An *unmarked* phenomenon is one which accords with general tendencies in language; a *marked* phenomenon is one which goes against these general tendencies, and is hence 'exceptional' in some way." (Radford, 1981:29).

Hyman takes up the concept of privative oppositions from the Prague School of Linguistics (cp. Trnka 1966: 12f.) when he states under the heading 'Universal Markedness': "The first view of markedness is that something which is marked is characterized by the *addition* of something, for example, /k^w/ carries lip-rounding, while /k/ does not. In distinctive features it is (+round)". It is well known that the existence of the unmarked series implies the existence of the marked series but not vice versa. Thus a language showing voiced stops must have unvoiced plosives as well, while the contrary assumption does not obtain (cp. Christie 1979:76ff).

Starting from Hyman's definition of markedness (1975:145f.) conceived as the occurrence or non-occurrence of a given feature in a phonological system (e.g. voicing, aspiration, glide, length) the concept of neutralisation of so-called conjunct oppositions (cp. Trnka 1966:12f.), which likewise goes back to the

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Prague School, must be interpreted as a reduction to the unmarked (i.e. neutral) member of a phonological opposition (the so-called *archiphoneme*). In Modern German this holds true for the series of voiced plosives and for /z/ in word-final position. This is, however, not the case for /s/ (unmarked) vs. /z/ (marked) in word-initial position, where only the voiced phoneme, i.e. the marked member of the contrast, can be found (cp. Waugh 1979:155ff).

According to the above-mentioned definition of markedness all diphthongs in a given language (which will also have monophthongs) may be considered as marked because of the glide (G) which follows the vowel (V) as the first element of the diphthongs in question. This dichotomy of the vocalic nuclei (excluding length as a distinctive feature, e.g. ME /i/ ≠ /i:/) would not tell us very much about the development of the Late ME sound system, if it were not inserted into a wider set of tendencies which had their origin even before 1400. Reference is made to the rise of new diphthongs, while monophthongisation of some of the new diphthongs, e.g. ME *ai, oi, ui* > *ā, ō, ū* (cp. Berndt 1960: 112f.) may represent the opposite tendency.

In the first part of my article I shall therefore focus on the genesis of the subsystem of ME diphthongs, which owes its existence to the vocalisation of medial spirants /γ, j, w, χ/ (cp. Fisiak 1968:50ff.) on the one hand, and to the influx of Romance loanwords on the other hand. The sequential rules which give rise to the new ME diphthongs will be described according to the principles of markedness. The next part will comprise a classification of ME diphthongal phonemes, including /i/ and /ū/. The relevant phonological features will be specified. This classification might give a clue to the origin of the Great Vowel Shift (GVS). The ensuing discussion will focus on ME *oi, ui, ai*, of which the first two occur mostly in words of Romance origin. They will be interpreted as sequences of V + G according to the principle stated above (cp. Trager/Smith 1951: 20ff.). The last part of my article will be devoted to ME *oi, ui, ai* in connection with palatalised and non-palatalised consonants and consonant clusters which may follow these diphthongs or their monophthongal counterparts.

Undoubtedly, ME *oi* and *ui* must be regarded as marked because of their foreign origin, although further reasons will be given below. The special situation of *oi* within the ModE phonematic pattern has been repeatedly discussed in recent publications. Its linguistic status has been a matter of controversy ever since N. Chomsky and M. Halle (1968:191f.) tried to include *oi* in their phonological framework assigning to it the underlying tense monophthong [æ]. K. Dietz (1981a: 269—274) gives a succinct overview of recent treatments of ModE *oi* by generative phonologists. He quotes P. Ladefoged (1971:25—28) and J. L. Fidelholtz and E. W. Browne (1974: 159—184), who convincingly argue that surface structure and deep structure of that controversial diphthong must be identical. Dietz rightly refutes the view expressed by J. Vachek (1964:

78—84) that [oi] could be regarded as a signal of the foreign character of the English lexemes which contain it (Dietz 1981a:270f.).

ME *oi* and *ui*, which mostly occur in words of Romance origin do, in fact, violate the Middle English sequential rules. Thus *i*-diphthongs with a velar first element cannot be found in native vocabulary (cp. Dietz 1981a:269). They occur, however, in French loanwords such as *boil v, point, join, joy* and in some loans of Dutch origin such as *decoy, hoist, loiter*. ModE *groin* and *boil n* 'ulcer' are admittedly of native origin, reflecting ME *ī* (<OE *ī*), while their actual vocalism is certainly due to analogy (cp. Dobson 1968:819f.). ModE *boil n* and also *hoist v* which originally had *ī* often occur with [ai] (which corresponds to ME *ī*) in dialectal pronunciation (cp. Kurath and McDavid, 1961: 168).

The English sequential rules which govern the formation of ME diphthongs admit the combination of both front V and a palatal spirant and back V and velar spirant. The first combination yields diphthongs consisting of front V + front G (A₁), e.g. *daies, wei* 'way', *eighte*; the latter combination leads to back V + back G (A₂), i.e. *drawen, bowe n, soughte, taughte*. I wish to consider the A-combinations as *unmarked*. In all these cases V and G agree in backness and rounding: V/G (aback/around). Only *au* constitutes an exception, as it has V (—round)/G(+round).

The second group of diphthongs which originate during the ME period is characterised by non-agreement of the features backness and rounding: V (aback)/G(—around). For that reason I wish to regard the diphthongs of the B-group as *marked*. The first subgroup (B₁) comprises the sequence front V + back G, yielding /iu/, as in *Tiwesdai* 'Tuesday', /eu/ as in *newe, due*, /eu/ as in *fewe, shrewe, dew*. ME /iu/ and /eu/ merge under the former before 1400. Furthermore ME /iu/ serves as a substitute for OF stressed *ū* in free syllables (cp. Horn and Lehnert, 1954:361). The third phoneme /eu/ only merges with /iu/ towards 1700 when the variant [ju:] is attested with certainty (Horn and Lehnert 1954:371 and 374).

The following subgroup (B₂) contains diphthongs consisting of back V + front G, a sequence which — as we have seen above — is at variance with ME phonotactic rules. One must take into account the fact that after the Norman Conquest *oi* also crops up in native words such as *broiden* 'braided' (early 12th cent.) and *noither* 'neither' besides *oither* 'either' (early 14th cent.). To these few words a series of place-names of the type *Croydon* must be added; these start to appear after 1100 (Dietz 1981a:339f.). Consequently, ME /oi/ cannot be regarded as a phoneme of exclusively foreign origin, the view held by almost all work on the subject so far. Despite its low frequency and its initial restriction to the area of place-names, *oi* of native origin could indeed act as a substitute for AF *oi*. Thus ME *oi* should be cancelled from the list of so-called phonemic borrowings (Dietz 1981b:404f.). The only diphthongal phoneme of foreign

provenance remains Anglo-French *ui*, whose integration into the ME sound system was facilitated by the existence of *oi* (Dietz 1981b:405). It may be worth noting that [ɔi] and [ui] developed in the tonic syllable of words such as *foal*, *coat* and *boots*, *school* respectively in the South Western part of Yorkshire during the Early ModE period (cp. LAE, maps 135a, 136, 138, 144a; AES, 73ff. and 98ff.).

Consequently the subgroup B₂ contains words showing ME *oi*, e.g. *choicé*, *cloister*, *coy*, *joy*, *noise*, and ME *ui* as in *anoint*, *boil* v, *join*, *point*, *poison*, *toil* 'to labour' (see Horn and Lehnert 1954:376). Most of the *ui*-words had variants with *oi* (which already existed in the source language), while quite a few of the items showing etymological *oi* acquired an analogical variant with *ui*. This fact illustrates the special status of the contrast /oi/ vs. /ui/, for which no minimal pair can be found. We know that Standard English had continued ME *oi* (yielding ModE /ɔɪ/) to the exclusion of *ui*, which merged with the continuations of ME *i* in the course of the 17th century (Horn and Lehnert, 1954: 377f.). Even to this day English dialects of the Eastern and Western Midlands and quite a few speakers from the Atlantic Seaboard of the USA have maintained the original situation, where Modern English *point* and *pint*, *toil* and *tile*, etc. are homophones (cp. Kurath and McDavid, 1961:167f.; Kurath and Lowman, 1970:26f.).

Generally speaking the B-group is characterised by the combination front V +back G and back V +front G respectively. The feature specification runs as follows: V (αback)/G (-αback) and V (-αround)/G (αround). As stated above, the B-group includes the diphthongs *iu*, *eu*, *eu* (B₁); *oi*, *ui* (B₂). The merger of *iu* and *eu* under *iu* occurs in the course of the 14th century (Berndt 1960:61), reducing the number of marked diphthongs by one. The unmarked diphthongs (group A) include *ei*, *ai* (A₁); *aū*, *ou* (A₂). Their number is reduced to three by the merger of *ai* and *ei* to *ai* towards the end of the 13th century (Berndt 1960:52). The unmarked diphthongs undergo a complete change in their phonetic realisation during the GVS. ME *ai* and *ou* converge with the continuations of *ā* and *ō*; ME *au* forms one of the sources of ModE /ɔ:/ (rarely /a:/).

Following the definition given above (p. 39) the diphonemic cluster /ju:/ must be interpreted as *marked* because of the existence of prevocalic [j]. As early as in the second half of the 17th century the marking element disappears after /j-, ʃ-, tʃ-, dʒ-, r-/ and after consonant + *l*, e.g. in *chew*, *Jew*, *rue*, *blue*. Lists of homophones dating back to that period confirm this process. Lediard (1725) also testifies to the loss of prevocalic *j*. He gives [u:] (unmarked) instead of [ju:] (marked) after /d-, t-, l-, n-, s-/, e.g. in *dew*, *steward*, *lewd*, *new*, *suit* (cp. Ekwall and Ward 1975: § 65). British English clearly shows a reduction of /ju:/ to /u:/, which is to an even greater extent true for American English (cp. Kurath and McDavid 1961:168).

It would be rash to postulate that under the aspect of linguistic economy

marked phonemes tend to be eliminated earlier than unmarked phonemes. This tendency might be counteracted by the function of communication of language which favours a "différenciation maxima" on the level of distinctive units. This hypothesis put forward for the first time by A. Martinet (1970: 62 and 150f.) may have contributed not only to the preservation of /ɔɪ/ as an English phoneme, but may also have encouraged the rise of ModE /aɪ/, /aʊ/, /əv ≈ ov/, /eɪ/, which already existed in ME. H. Wode (1980:133) draws attention to the fact that in the course of L2-acquisition "apparently not all phonological elements are substituted by L1-elements (...). English /aɪ, ɔɪ, aʊ/ tend to be produced fairly target-like (...). On the other hand, English /əv/ and /eɪ/ are regularly substituted by monophthongs in L2-English", (cp. Wode 1981: 221, 235 and 1982:44, 59f.).

The Late ME vowel system permits a dichotomy into a subclass of long high vowels /i/ [iy] and /ū/ [ūw] and of diphthongs *iu* [iw] and *ui* [ūy]. The first element of these diphthongal nuclei and the glide are the same in highness: V (+high)/G (+high). Another subclass comprising ME *oi*, *ai*, *au*, *ou*, *eu* is characterised by different tongue heights of V and G. The glide of all phonological units quoted so far is, however, specified (+high).

The first group (3) of the Late ME vowel phonemes has V and G agreeing in the coefficient of the distinctive feature *high*: V/G (+high). The second group (4) shows V and G differing in this feature: V (-high)/G (+high). Thus the first element of the diphthongs in question consists exclusively of non-high vowels. Again the first class can be split up into long high vowels /iy/ and /ūw/ (cp. subclass 3a). As V and G agree in backness and rounding, they are subject to the so-called Vowel Shift Rule (VSR) within the generative framework of the *Sound Pattern of English* by N. Chomsky and M. Halle (1968:187f.). The second subclass (3b) contains the diphthongs ME *iu* and *ui*, the elements of which do not agree in backness and rounding. For that reason they are exempt from the VSR, which is equally valid for the long monophthongs *ē* and *ī*, which according to Chomsky/Halle (1968:192 and 194) are said to underlie ModE /ɔɪ/ (see above p. 40f.) and /yūw/. Group 3 can be summarised as follows:

3a)	/i/	[ii],	/ū/	[uū]	V/G αback/αround/+high
3b)	/iu/	[iu],	/ui/	[uī]	V/G αback/-αround/+high

The following group can be subdivided into those diphthongs whose starting point is specified (+low), i.e. ME *ai* and *au*, whereas the first element of the remaining diphthongs belongs to the class of non-high/non-low vowels. This group may be summed up as follows:

4a)	/eu/	[eū],	/oi/	[oī],	V/G - high, - low/+high
	/ou/	[oū]			
4b)	/ai/	[aī],	/au/	[aū]	V/G +low/+high

As early as the second half of the 14th century a tendency to lower the first element of /īy/ and /ūw/ can be observed. The digraphs *ei/ey* used for ME /i/ in words such as *time* and *white* seem to point in this direction. ME /ū/, however, is always spelled *ou/ow* (following AF *ou* for *u* as in *flour*/Central French *fleur*) so that these spellings are inconclusive. On the other hand, the long close mid vowels *e* and *o* are often spelt *i/y* and *ou/u* respectively in the 14th and 15th centuries, e.g. *dyme* 'to deem' and *goud/gud* 'good'. All these spellings seem to indicate that the first phase of the GVS had begun (cp. Jordan 1968: §§ 277–280).

Returning to the divocalic nuclei of subgroup 3a above a parallel development of the respective variants (given under 5) can be discerned:

5) /ui/ [u_i ≈ u:^h ≈ u_i:] — /iu/ [i_u ≈ i:^h ≈ i_u:]

The first elements of [u_i] as well as of [i_u] and [u_u] — see 3a above — participate in an articulatory lowering which affects only [i_u] to a lesser extent. Tendencies toward the loss of the G — cp. [u:^h] and [i:^h] as variants of *ui* and *iu* (5) — seem to be less marked than in group 4, where ME *ai* and *ou* are monophthongised in the course of the GVS (see above p. 42). ME *iu* may have become *i* in words such as *limn* v (<OF *illuminer*) and *Jill/Gillian* (<OF *Juliane*) (cp. Cercignani 1981: 205f.; Kökeritz 1959:220) through the loss of the glide [u]. The alternative explanation would be a replacement of OF *ū* by ME *i* (Kökeritz 1959:219f.).

The variants [u_i:] and [i_u:] of ME /ui/ and /iu/ respectively are much more important. ME /wi/, which loses the onglide *w* especially after labial consonants, have been at the root of an early merger of ME /ui/ and /i/. Horn/Lehnert (1954: 377) quote *pyson* 'poison' for *puison* from a chronicle written in the second half of the 15th century as one of the earliest examples.

The tendencies described so far seem to have produced an articulatory dissimilation of V and G in group 3a (*īy* and *ūw*) resulting in variants of the type *ēy* and *ōw* (or [əɪ] and [əv]?) respectively. As a consequence ME /ē/ and /ō/ are raised to *i* and *ū*, filling the gaps in the pattern which resulted from diphthongisation of ME /i/ and /ū/. This process is confirmed by the spelling evidence discussed above. The proposed interpretation of the beginning of the GVS might support Martinet's hypothesis of the "cases vides" (1970: 80f., 85f.) and O. Jespersen's drag-chain model (1909:234f.).

At this stage of my article I wish to discuss the diphthongs with *i* as second element, namely *ei*, *ai*, *oi*, *ui* in a wider context by studying the nature of the consonants or consonant clusters which may follow these diphthongs or their monophthongal counterparts. This will result in a twofold division which, on the one hand, includes palatalised consonants and consonant groups, e.g. /l_i, n_i/ (substituted for OF λ, ɲ) and /t_i, st_i/. Because of the additional feature [j] (which constitutes their palatal character) these clusters have to be regarded as

marked. On the other hand, there is in English the series of the non-palatalised consonants and consonant clusters which has been found since the earliest records. There are no monophonemic palatal consonants in English such as the λ and ɲ typical of most Romance languages. If loanwords containing these consonants are borrowed into English, OF λ and ɲ are dissolved into *il*, *in* or *li*, *ni* (the palatal element preceding or following the consonantal nucleus) respectively, e.g. AF *coillir*, *cugner* > ME *coilen*, *cuinen* or *colyen*, *cunyen*.

It goes without saying that the palatalised series of consonants and consonant clusters owes its existence to the borrowing of a great number of Romance words as a consequence of the Norman Conquest. In this context suffixes of Romance origin such as ME *-iere/-ire*, *-erie* (> ModE. *-er/-ery*), *-ūre* [-iurə] and *-our*, *-iour* besides *-our/-or* (cp. Koziol 1972:228, 251f.) deserve mention. They are found in loanwords such as *mātiere*, *māture*, *matter* (MED, s.v. *mātēre* n), *moistoure*, *moistere*, *moisture* (MED, s.v. *moistūre* n), *natour*, *nature*, *nāter* (MED, s.v. *nūtūre* n). Starting from the assumption that non-palatalised consonants and consonant groups have to be considered as unmarked (neutral), the following dichotomy can be postulated:

<i>u</i> (=unmarked)	<i>m</i> (=marked)
C(C)-	C(C)+j-
l(l)-, e.g. <i>coilen</i> , <i>cuilen</i>	l(l)+j-, e.g. <i>colyen</i> , <i>culyen</i>
n(n)-, e.g. <i>coinen</i> , <i>cuinen</i>	n(n)+j-, e.g. <i>conyen</i> , <i>cunyen</i>
t(t)-, e.g. <i>matter</i> , <i>nāter</i>	t(t)+j-, e.g. <i>mātiere</i> , <i>nātūre</i> / <i>nature</i> [nat _i urə]
st-, e.g. <i>moister(e)</i> , <i>moistour(e)</i>	st+j-, e.g. <i>moistūre</i> , <i>-ūr</i> [m _ɔ ist _i urə]

The above series of relevant consonants and consonant clusters could easily be extended by the addition of pertinent word material of Romance origin. OF stressed *i* occurring in the suffix *-ure* is of particular interest. After the borrowing of words which contain this suffix it develops secondary stress, later becoming weakly stressed. Nevertheless *ū* of the source language is replaced by *iu* in the target language, which is always the case when no shift of stress occurs. The diphonemic groups /t_i-, st_i-/ which occur in words such as *nātūre* and *moistūre* [-iurə] tend to become monophonemic /[s-]t[-]/ during the Early ModE period, as exemplified in ModE *nature* [ˈnɛtʃə] and *moisture* [ˈmɔɪstʃə]. The non-palatalised variant has prevailed in ModE *matter* — cp. ME *māt_iere* beside *matere*. Even in Modern English words such as *amateur*, *actual* and *Christian* vacillate between posttonic clusters containing yod (marked) and clusters without it (unmarked). Gimson (1980:291) points out that [tj-, stj-] instead of [t-, st-] may occur in words such as *nature* and *question* in very careful speech. The marked clusters /tj-, dj-, sj-, zj-/ in *statue*, *residue*, *issue*, *seizure* are characteristic of careful speech (Gimson 1980:213).

The twofold division of palatalised and non-palatalised consonants and consonant clusters outlined above includes at the same time the four basic types of substitution for Romance loanwords containing the diphthongs *oi* and *ui*, a subject which has been given detailed treatment elsewhere.²

Type I: <i>oi/ui</i> +C(C)-	foisoun, fuisoun; boiste, buiste; cuilen, coilen; coin(en), cuin(en); boistous; poisoun, puisoun; *puinchoun
Type II: <i>oi/ui</i> +C(C)+j-	Early ME despoilzen; Late ME assoilye; *coinye; *foisyoun, *poisyoun; moisture(n) [mɔistjur-ə(n)]; *poinsyoun 'punch'; oinyoun/oineon/oineoun 'onion'
Type III: <i>ɔ/u</i> +C(C)+j-	Late ME fusyoun, bostious/bustious; cullion/colyoun; cul(l)ieur/colieur 'tax collector'; Scottish lunnye 'loin'; onyon /unyoun 'onion'; glorie, memorie besides gloire, memoire (type I); ponsyon/poncion and punchion n 'punch'
Type IV: <i>ɔ/u</i> +C(C)-	fus(o)un, pus(o)un; bostus/bustous/bustus; cul-en/cullen; cone/cune and cunage; Early ME engunne, onianne 'I enjoin' besides engoini; dungeon, truncheon; ponson/pounson 'punch'

It is obvious that types II and III have to be included in the marked series of palatalised consonants, while types I and IV must be counted among the non-palatalised series. The dichotomy presented above (p. 45) can be enlarged by taking into account the incidence of the diphthongs ME *ei/ai/oi/ui* and of their corresponding monophthongs (*e/a/ɔ/u*). It has been mentioned above (p. 40) that diphthongs may be considered to be marked because of the glide added to the vocalic nucleus. Consequently monophthongs may be considered unmarked. The following overview also includes Early ME *ei*, which no longer exists as an independent phonological unit by 1400 (see p. 42):

<i>u</i> (=unmarked) MONOPHTHONG	<i>m</i> (=marked) DIPHTHONG
i	ī, iū
e	ē, eū
a	ā, aū
ɔ	ɔ̄, ɔū
u	ū, uū

² "Untersuchungen zur phonologischen Rezeption romanischen Lehnguts im Mittel- und Frühneuenglischen. Die Lehnwörter mit mitttelenglisch *oi/ui* und ihre phonologische Rezeption" — To appear in *Tübinger Beiträge zur Linguistik*, 268 (Tübingen: Gunter Narr Verlag 1985).

Taking into account the markedness or unmarkedness of the vocalic nucleus and of the following consonant or consonant cluster respectively a revised typology may be derived:

Type I: <i>ei/ai/oi/ui</i> +C(C)-	<i>m</i> — <i>u</i> -sequence
Type II: <i>ei/ai/oi/ui</i> +C(C)+j-	<i>m</i> — <i>m</i> -sequence
Type III: <i>e/a/ɔ/u</i> +C(C)+j-	<i>u</i> — <i>u</i> -sequence
Type IV: <i>e/a/ɔ/u</i> +C(C)-	<i>u</i> — <i>u</i> -sequence

The existence of the above typology is amply documented and justified by Romance loanwords containing the diphthongs or monophthongs in question. The following rewrite-rules may be given for the conventions of markedness discussed above:

^u consonant	→ — palatal (no <i>j</i> -element follows)
^u vowel	→ — glide (i.e. monophthongs)
^m consonant	→ + palatal (the consonant is followed by <i>j</i>)
^m vowel	→ + glide (i.e. diphthongs)

As regards the further development of types I — IV in English, type II was evidently not integrated because of its 'double markedness' (*m* — *m*-sequence) in accordance with the principle of linguistic economy. Late ME *despoilyen*, *assoilyen*, *moistie* and *moisture* [mɔistjʊrə], which exemplify type II will have disappeared after 1500. Lexicalisation may have occurred in a few cases such as ModE *moisty* (besides *musty*). In the case of ME *moisture* [stj-] has become [st-] in Modern English. From a quantitative point of view type II may have occurred less frequently than type IV.

Type III (*u*-*m*-sequence) is typical of Northern ME and Scottish in replacement of AF *λ* and *ɲ*. It can also be found outside these regions in other consonants or consonant groups. During the Early ModE period it acts as a substitute for the above-mentioned palatalised consonants (*λ* and *ɲ*) of French and other Romance languages (cp. Dobson 1968:847 and 1006). In most cases, however, type III has to give way to type I (*m*-*u*-sequence), which is well established in the greater part of the Midlands and Southern England. Since the standard language emerged in the East Midlands (with London as its centre), type I has prevailed over type III, as *avail*, *pail*, *fail*, *coil*, *boil*, *join*, *coin* show. In so far as type III has survived it has been lexicalised, as can be seen by ModE *musty*, *cullion* and *onion*. A few cases show Latin influence, e.g. ME *glorie*, *memorie*, *calvarie* — Early ME *gloire*, *memoire*, *calvaire* (type I), corresponding to ModE *glory*, *memory* and *calvary*.

Type IV (*u-u*-sequence) is clearly the least marked structure and would go against the principle of "différenciation maxima" postulated by Martinet. Its peripheral existence is underline d by sporadic lexicalisations, e.g. ModE *cull* v beside *coil* v (type I) and ModE dialectal *puson* ['pɔzn] for ModE *poison* (type I).

We have seen above that in phonology neutralisation need not imply the incidence of the unmarked member of an opposition (p. 40). In the case of sequences described above we have to reckon with the occurrence of the unmarked or less marked variant where neutralisation occurs. In fact this assumption is confirmed by the reduction of diphthongs with *i* as second element (ME *ai/oi/ui*) followed by /[-, ns-, nt]-, st-/ sch/sh, ns/nc, nch, st in Romance loanwords after 1300, e.g. ME *cash(e)*, *busshe*, *crushen*; *ponson/punchon*; *mastre*, *bust(e)* which go back to OF *caisse*, *boissel*, *cruissir*, *poinçon*, *maistre*, *buiste* (cp. Luick 1921/40:471; Horn/Lehnert 1954:558f.). Some 200 years earlier new diphthongs arise before /s/, e.g. ME *aish*, *fleisch*, *waischen* corresponding to ModE *ash*, *flesh*, *wash*. This phenomenon, which only occurs in native words, runs counter to the above-mentioned tendency to reduction of diphthongs. It reaches its peak during the first half of the 14th century (Giffhorn 1978: 260, 264). Unlike the reduction of diphthongs in French loanwords this change has not been of any consequence for the standard language (Giffhorn 1978:256).

Our topic should require a treatment of the question of frequency of the more marked structures, which mainly occur in Romance loanwords. The influx of these loans is greatest in the second half of the 14th century. As is to be expected Chaucer's works show a rate of about 52 per cent of Romance loans (cp. Zettersten 1969:229f.). We have seen above that the more marked sequences disappear from English after 1500, so that in the end less marked structures gained the upper hand during the Early ModE period. J. H. Greenberg (1966:14) rightly points out that "In general the unmarked category has higher frequency than the marked".

My short study was based on the assumption of marked and unmarked vocalic and consonantal phonemes and clusters. It became evident that the marking element could both follow (e.g. diphthongs, palatalised consonants) and precede (e.g. Early ModE /j+u:/). Evidently, marked segments are liable to be eliminated — at least in English — sooner or later, unless stylistic factors, e.g. (very) careful speech, counteract this tendency. I hope to have shown that the theory of markedness can shed light on important changes within the Late ME vocalic system and on changes in phonotactic rules due to the borrowing of a vast number of Romance loanwords. This also holds true for the conditions underlying the system which led to the Great Vowel Shift, although other linguistic principles such as economy or 'maximal differentiation' may have played a part.

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