Journal of Siberian Federal University. Humanities & Social Sciences 3 (2017 10) 317-324
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УДК 81. 34, 81.44. 81-2

English in the Continuum of Phonemic-Nonphonemic (Syllabic) Languages: a Rethink of an Earlier Proposal

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Received 10.09.2016, received in revised form 26.09.2016, accepted 10.01.2017

The paper is dedicated to the analysis of syllable structure in English against the background of some typologically similar and different languages.

Keywords: language typology, syllable structure, typological change.

DOI: 10.17516/1997-1370-0039.

Research area: philology.

Introduction

Beginning with the late 1980-ies (cf. Brodovich 1986, Brodovich 1987) the present author was proposing the idea that English in its phonological development is drifting away from its affiliation with the purely phonemic languages to closer ties with syllabic languages. However, further analysis of the problem made the author reappraise the relationships observed. The present paper is aimed at presenting this reappraisal of the earlier proposal.

Foundations for the original proposal

The arguments for this view were based on the ideas in the fundamental work by V.B.Kasevich (Kasevich 1983) stating the principal distinctions between phonemic and syllabic languages. The properties of English demonstrating its closeness to syllabic languages are the following.

(**1**) Closer contact of all stressed vowels with the following consonant than with the preceding one, in particular the dependence of a vowel's variation pattern on the following, and not on the preceding, consonant; (**2**) difference in variation patterns between syllable-initial and syllable-final allophones of consonants; (**3**) a decrease in the number of consonants – at least in dialect – accepted syllable-finally, and a weakening of their final articulations; (**4**) the trend for a syllable boundary to coincide with the morpheme boundary and the resistance of English to

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resyllabification, i.e. changing by a syllable-final consonant of its membership in the syllable when another vowel is added to the word; (**5**) scarcity of non-syllabic morphemes in English and their alternation with syllabic allomorphs. Many of these properties of English become particularly evident when dialect data are considered not as a collection of disparate facts but as instances of a uniform system.

The following facts from English dialect variation prove the first item.

- In many dialects of English checked vowels develop lengthened and/or diphthongal realizations when followed by certain consonants, particularly by the nasal and/or /d/. Thus, *bad* [bæ:d], *sand* [sæ:nd], *did* [di:d].
- In London speech checked vowels develop narrower and diphthongal realizations before voiced consonants, especially before /d/. So here we have *bed* [be^{i}d], *bad* [bɛ:^{i}d].
- In London speech the vowel corresponding to the RP vowel /ɔ:/ has two different (both diphthongal) realizations, depending on whether theirs is a closed or an open syllable. Open syllables have more open realization of the [ɔə] type; closed syllables have narrower realizations. Thus, *saw* [sɔə], *sauce* [sous].
- Before /l/ many vowels change their quality. For instance, in East Anglia /ɛ/ moves centrally to [ɜ] or even to [ʌ] in *hell*, *sell* or *fell*. Interestingly enough, this may also occur before the [ʔ]-realization of /t/ in two-syllable words beginning with a labial. Thus, *better* [bʌʔə], *metal* [mʌʔl]. In other dialects glides occur after any vowel before /l/. So, *feel* [fiəl], *nail* [nɛiəl].

There are also facts from other varieties of English demonstrating the dependence of a vowel's variation on the quality of the following consonant (Cf. Wells 1982, vol. 3). One of such facts is the Canadian Raising, i.e. narrowing of the diphthongs /ai/ and /ɑʊ/ before voiceless consonants. Thus *wife* [wəif], but *wives* [waivz], *out* [ʌʊt] but *loud* [lɑʊd]. What is particularly important is the fact that this only happens before syllable-final consonants. When a voiceless consonant following one of these diphthongs belongs to the next syllable the raising does not occur. So [əi] in *bicycle* [ˈbəisɪkl] but [ai] in *bisexual* [ˌbaiˈsekʃuᵊl] (J.C.Well's example, see Wells 1982, v.3, 494-5).

Evidence from American English is offered by the development in progress of the narrower and often diphthongoidal realizations of the phoneme /æ/. This change shows dependence on the following consonant, the position before nasals being the first to trigger the process (Wells 1982, 6.1.4.).

The importance of the difference in variation patterns between syllable-initial and syllable-final consonants for the typological affiliation of a language forms item two in the given list of important features of English. The phenomenon is demonstrated by the following.

- In many dialects consonants that come after vowels or nasals are glottalized. /t/ is the consonant which is glottalized most often in all corresponding dialects and virtually in all corresponding environments, i.e. after all vowels, both medially and finally. But /k/ and /p/ are also fairly often realized as [ʔ], as are occasionally even [f, v, θ, ð, d]. Thus, *different* [dɪʔrən], *on the other side* [ən i ʌʔə saiʔ]
- In London speech /θ/ and /ð/ are realized as [f] and [v / d], the [f]-realization of /θ/ being context-free, while the [v] and [d]-realizations of /ð/ are context-sensitive, [v] occurring medially and finally, [d] – initially.
- There are context-sensitive realizations of other consonants, notably the [ɾ]/[r]-realizations of /t/ in many varieties of English, which also occur either medially or finally, but never initially; another example is the realizations of

voiced plosives as affricates when initial, and as fricatives when medial or final.

- In London speech and in many dialects around London /l/ is vocalized after vowels and word-finally. Thus, *help* [heop], *meal* [mi:o], *thistle* [θɪso], *weasel* [wi:zo], etc. This is obviously a continuation of the well-known allophonic variation of /l/ in Standard British English, where word-initial (*ergo* pre-vocalic) /l/ is realized as the so-called clear [l], while post-vocalic and word-final l's are realized as the so called dark [ɬ]. Thus *lip* [lıp], but *milk* [mɪɬk] (London [mɪok]), *pill* [pɪɬ] (London [pɪo]).

Item three in the list above is demonstrated by many instances of consonantal variation. The voiceless stops are aspirated only in initial, and never in final positions. The allophonic variation of /l/ mentioned above is another example. Numerous examples from dialect variations can be quoted, but perhaps the most persuasive evidence is the glottalization of syllable-final consonants. Instead of a wide fan of syllable-final consonants offered by the Standard what we witness, for instance, in London dialect is a sole consonant, namely [ʔ].

In British English /r/ was vocalized after vowels and in final positions. In some other varieties of English it is retained in these positions but is articulated considerably weaker than initially. In many dialects the syllable-final /l/ is vocalized not only after historic /a/ and /o/ (as in *talk*, *half*, *folk*) but after all vowels. Thus *fields* is [fiɷdz~ fiodz], *held* is [heɷd~ heod], *pull* is [puɷ~puw]. In fact, many dialectal processes decrease the number of consonants occurring syllable-finally and/or weaken their syllable-final articulations.

Item four above is proved by many facts and considerations. J.C.Wells in his Pronunciation Dictionary (Wells 1990, xx) specifically states that in English (a) a syllable boundary coincides with the morphological boundary; and (b) in stressed syllables the consonant stays in one syllable with the preceding vowel regardless of its quantitative or qualitative character. A particularly showing instance is formed by words like *pleasure*, *vision, mission, missile, cushion,* etc., where the fricatives cannot be considered as anything but syllable-final, for the preceding vowels are checked ones never occurring syllable-finally but only before consonants. Interestingly, words like *pleasure* actually demonstrate instances of historical resyllabification (Lass 1999, 99-100) but of a significantly different type from the one typical of phonemic languages, where a syllable-final consonant moves to the next, right-hand syllable to become a syllable-initial consonant as in *ðoм* but *ðo – ма*. In the case of *pleasure* words the first element of the following diphthong /iu/ in their Middle English form, which for *pleasure* was [plɛ′ziur], turns into the sonant /j/ and moves left (together with the stress!) to join the [z] in a sort of affricate [zj], which later fuses into /ʒ/. So what we witness here is moving of a sound to the left-hand, preceding syllable, not to the next one – something that never happens in languages like Russian.

Dialectal material gives us many facts demonstrating that the consonant of a stressed syllable stays with it even when another vowel is introduced immediately after. Thus the [ə]-glide developing before /l/ in words like *feel* [fiəl] stays there even when the *–ing* morpheme is added. So *feeling* is [′fiəlın], which proves that the word is syllabified [′fiəl – ın]. At the same time it shows that in derivatives like *feeling* the syllable boundary coincides with the morphemic boundary.

In our view very showing in this respect is the pair of the Canadian *bicycle* [′bəisıkl] and *bisexual* [ˌbai′sekʃuᵊl] quoted above. The first word is no longer perceived as consisting of the morpheme *bi-* with the meaning of *two* and the second morpheme *-cycle* meaning *a round object,*

in this case, a wheel. The morphemic structure of the word is uncertain for a naïve speaker, with the first syllable perceived as the principal morpheme without a clear meaning of its own (and the second part apparently associated with [-*ɪkl*] in words like *icicle, article, cuticle, cubicle,* etc.). Therefore the /s/ coming after *bi-* is now the final part of the first, stressed, syllable. This is what is evidenced by the appearance of the [əi] variant of the diphthong /ai/ which only occurs before syllable-final voiceless consonants. The second word of the pair in the example also contains the morpheme *bi-* with the meaning of *two* and the consonant /s/ following it, but in this case the separateness and the meaning of *bi-* stay clear; it is the second syllable which is stressed, and the morphemic structure of the word is clear, the first morpheme adding a new meaning to the principal part of the word, which is *sexual.* Therefore the word is pronounced [baiˈsekʃuˠl] with the principal allophone of the diphthong /ai/. So the syllabic structure of *bicycle* is [ˈbəis – ɪkl], while for *bisexual* it is [ˌbai – ˈsek – ʃu-*ə*l ~ – ʃˠl].

To come to item five. Root morphemes coincide with (single) syllables in most English words of Germanic origin – especially if we accept the argumentation in favour of item four above. The numerous words of Romance origin are a different matter, of course. But although they may consist of more than one syllable, as *beauty, habit, generous, ignore, magnificent, etc.,* there are no asyllabic root morphemes of any origin in English. Even function words like prepositions or conjunctions are represented by syllabic forms. There are no English prepositions similar to Russian *в, с, к* or particles like *ж (*as in *Ты ж не можешь ...).* True, among functional morphemes in English we find /s/ for plural or possessive or third person singular of verbs, /t/~/d/ for past tense or participle II and /θ/ for ordinal numerals – but these three form all the list of English asyllabic morphemes. Two of these (-s and -t~-d) have syllabic allomorphs in corresponding phonetic environments. What is more, in dialects we find syllabic [ɪz] for plural not only after [-s], but in other contexts: plural of *post (*presumably *posts)* realized as [ˈpoːstɪz].

All these considerations persuaded me that English was drifting away from its place within the domain of phonemic languages towards the domain of syllabic languages.

Coming to a new estimate of the shown facts

Since the publication of my views on the matter a very important book by Ju.K.Kuzmenko appeared (Kuzmenko 1991) on phonological evolution of Germanic languages. In it the author was concentrating on the evolution of the syllable structure of words in all Germanic languages. In his conclusions Ju.K.Kuzmenko stated that all Germanic languages move in the direction to closer ties with syllabic languages, and that English in many respects was demonstrating more prominent features of this trajectory of evolution. Ju. K. Kuzmenko proceeded from different considerations than the ones suggested by myself. His principal attention was drawn to vowels, more precisely, to the quantity parameter of vowels, with consonants only studied with respect to their position and role in the syllable. Indeed, virtually all chapters in the book are subdivided into two main parts, entitled "Prosody" and "Vocalism". Although I disagreed with the author in some matters that I then considered of minor importance, the overall result was very satisfactory for it corroborated my idea of the direction of evolution of English.

However, I now estimate the position of English in the continuum described in the title of the paper somewhat differently than before.

On the one hand I am now even more certain that English is typologically very different from languages like Russian and that the difference

lies in the nature of the syllable. Besides, I am now sure that English in this respect is in one typological world with other Germanic languages. Some publications on the phonology of dialects of German, in particular on Bavarian, made me, even while I was working on the original version of my hypothesis, suspect that English was indeed not unique in what I found. But on the whole I am, of course, indebted here to Ju.K.Kuzmenko and his book.

On the other hand I now think that some of the features which now form the sharp watershed between Germanic and other Indo-European languages, have been their property from the onset, i.e. from the times when Proto-Germanic – whatever it may have been – split from the rest of Indo-European languages, and that they are part of the foundation for the split. If it is so, then many of the facts described above stem from this original typological foundation of Proto-Germanic. One of the first steps – if not ***the*** first – on the way Germanic languages took in their typological deviation from sister languages must have been the shift of the stress to the first, root, syllable.

This must have been the impulse pushing Germanic languages towards establishing close relations of the (stressed) vowel with the following consonant. On feasibility of such interpretation cf. Comparative Grammar of Germanic Languages (Comparative Grammar, v. II, 73). That such relations existed already in the pre-Old English period is demonstrated by the Breaking in Gothic i.e. appearance of more open articulations of short ***i*** and ***u*** before /r/ and /h/, raising of vowels before nasals common to almost all Germanic languages, Old English Breaking, i.e. diphthongization of front vowels before certain consonants and consonant clusters, which happened not later than the V century (Smirnitsky 1955, 118). The authors of Comparative Grammar of Germanic languages interpret dependence of a vowel's variation on the following consonant as a proof that the consonant in question belongs to the same syllable with the vowel involved in the variation (Comparative Grammar, v. II, 130). This shows the first steps of Germanic languages towards predominance of closed syllables.

Therefore the first correction of my version of the typological shift in English proposed earlier is twofold:

(a) The shift in question is a continuation of inherent properties of English as a Germanic language;

(b) If (a) is correct, then the shift proceeds parallel to and on the base of retaining the phoneme as the smallest unit of the language's phonological structure.

This last statement makes me review my estimate of some of arguments adopted by Ju.K.Kuzmenko. His conclusions – if I read them correctly – are (a) that all modern Germanic languages demonstrate various degrees of affinity with syllabic languages; (b) in certain respects English apparently is further along the way to syllabicity, and (c) the uniform movement from the initial stage to the present-day status includes for all Germanic languages four consecutive steps, namely, (1) mora-counting; (2) isochrony; (3) contact correlation, and finally (4) morphosyllabism.

From my point of view the first two conclusions are fully justified. The third one, however, seems difficult to accept. My principal objections are the following.

The stage of isochrony never existed in the history of English. In order to prove its existence some facts of English phonological development have to be ignored and some assumptions made which are difficult to prove.

First of all we know for a fact that in Middle English – the period of time allotted to isochrony – there existed not only stems with the structure of V: + C, as in *stǭn,* (presumably opposed to

V + C:) but also over-heavy stems of V: + Son. + C as in *fīndən,* with the vowel lengthened in the position before *ld, nd, mb* and occasionally before other clusters. True, Ju.K.Kuzmenko draws our attention to numerous exceptions from this rule quoted by Dobson (Kuzmenko 1991, 167) – but truth is that out of all of them only the noun *wind* remains, with the vowel returning to its original short quantity, while even the homonymous verb *to wind* has the expected /ai/ out of /i:/. And even the solitary exception of *wind*, n. has its regular explanation (see Ilish 1968, 198).

Besides, the existence in Middle English of stems with short vowels exclusively with the structure of V + C:, i.e. with only a long consonant following a short vowel, is very dubious. As a proof, the author mentions *Ormulum* with its well-known graphical strategy of doubling consonants after short vowels. But there is no proof that the consonants themselves were long. Ju.K.Kuzmenko says that in Middle English the use of doubled consonants in writing becomes a universal practice (Kuzmemko 1991, 158) – but it is far from what we can really witness in Middle English texts. In late Middle English this is completely non-existent and in Early Middle English texts absolute majority of doubled consonants occur intervocalically. There is apparent selectivity among them: the better part of them are sonants – mostly *nn* or, rather more seldom, *ll,* – with obstruents occurring very rarely even in this position.

Traditionally the explanation of the doubling of consonants in written texts is that it is a graphical device intended to show, not the length of the consonant doubled, but the shortness of the preceding vowel. For example, *Godd* in Layamon's *Brut* might have been spelt as it was to prevent its confusion with *god*, adj., which was [go:d]. So it is not quite clear what makes Ju.K.Kuzmenko think that all words like *gat,* even when spelt with only one consonant, were phonetically of the shape of [gatt] (Kuzmemko 1991, 164-5).

It could be shown that by the end of Middle English length contrast, although no longer a systemic feature, remained as an important property of a vowel, which is evidenced by the existence of pairs like *stǭn – on* or *wīs – is,* or *hūs – us.* But apparently to this argument Ju.K.Kuizmenko will object that all the second items in the pairs had long consonants – although how this can be proved remains obscure.

Another consideration of the role of vowel length in the evolution of English touches upon the lengthening in open syllables. If this process is evaluated as one of the steps towards isochrony, then we will have to find some justifications of a similar nature to the lengthening that happened centuries earlier, in Old English, in words like *þū, hē* – at a period where the stage of evolution is presumed to be not isochrony but mora-counting.

One more statement in (Kuzmenko 1991) is hardly applicable to English. Finalising the discussion on the state of isochrony Ju.K.Kuzmenko says that during this state the quantity parameter of both vowels and consonants is irrelevant because it is a function of the length of the other member of the pair. One can only agree with this. But then in English, again, this state could not have been present because on the verge of Middle English and the rise of Early Modern English the Great Vowel Shift occurred which involved long vowels – all long vowels, only long vowels and nothing but long vowels. If the length of this class of vowels was irrelevant then there was no such class – but we know that it was there. What is more, one of the most persuasive theories explaining the stimulus for the GVS proceeds from the analysis of the correlation between the subsystems of long and short vowels at the onset of the GVS. This analysis shows that the situation in English vocalic system prior to the beginning

of the GVS was one of asymmetry between subsystems of long vowels, which included seven phonemes, and short vowels counting five phonemes. It further goes on to show that it were the highest vowels /i:/ and /u:/ that remained without short correlates and started the movement away from the class of monophthongs towards that of diphthongs. The theory is very convincing, which in itself is a good proof of the soundness of its premises, viz. that the GVS began because of the asymmetry between long and short vowels, which, naturally, presupposes the existence of the two subsystems.

There is an assumption in (Kuzmemko 1991) that seems to me a contradiction in itself. This is the admittance, on the one hand, of the coincidence in Modern English of syllabic boundaries with the morphemic boundaries coupled with, on the other, the belief that only some of English root morphemes, namely those with checked vowels, contain a close contact of the final consonant with the root vowel. If this were indeed the case only a comparatively small quantity of English words would be able to demonstrate this syllable-morpheme boundary coincidence, for checked vowels are considerably smaller in number than free ones. If free vowels have a loose contact with the following consonant then addition of a functional morpheme to the root would cause resyllabification – and the boundaries of syllables and morphemes would no longer coincide.

What we really have in Present-day English is – and this, one hopes, was demonstrated above – a close contact of any stressed vowel with the following consonant. This forms a fundamental difference in the nature of the syllable between English and such languages as Russian. On the other hand the claim for (stressed) syllable boundaries to always coincide with morpheme boundaries is difficult to satisfy in English with its multitude of words of Romance origin, which often have rather vague morphemic structure from the point of view of their present-day state. Examples are the better part of English vocabulary: *consist, agree, object, persuade, admit, adore, migrate, instance, schedule, comrade, sentence, etc., etc.*

To sum up

English, together with other Germanic languages, occupies an intermediate position between typically phonemic and typically syllabic languages. It shows signs of a drift towards forming close ties with the latter languages – perhaps, as Ju.K.Kuzmenko shows, more so than some other Germanic languages – but this movement is complicated by the existence in its system of loan words with – for a modern speaker – an indefinite morphemic structure. This considerably decreases the number of occasions in English when syllable boundaries coincide with morpheme boundaries – a feature which is crucial for attributing a language affinity with syllabic languages. This, together with the fact that any typological changes in English so far have been coherently described in terms of phonemes, makes one conclude that phonemes retain their role of the minimal unit of phonological structure of English. Apparently there indeed is a continuum of types of phonological organization of languages. Within this continuum individual languages differ by the unit weights of the different features in their systems out of the ones comprising the ideal types at the extremes of the continuum.

References

Brodovich, O.I. (1986). Strukturnaia rol sloga v angliyskom yazyke: dannyje dialektov. [Structural role of the syllable in English: Dialect data], *In* Vestnik Leningradskogo universiteta, Leningrad, 2 (2), 69-87.

Brodovich, O.I. (1987). English in the Continuum of Syllabic – Non-syllabic (Phonemic) Languages: RP and Dialect Data, *In* Proc. XI Int. Congress of Phonetic Sciences. vol.5, Tallinn, 324-6.

Comparative Grammar. (1962). *Sravnitelnaya Grammatika Germanskich Yazykov, Tom II, Fonologiya [A Comparative Grammar of Germanic Languages, vol. II, Phonology]*. Moscow, Academy of Sciences Publishing House.

Ilish, B.A. (1968) *Istoriya Angliyskogo Yazyka [A History of the English Language]*. Moscow, Vysshaya Shkola.

Kasevich V.B. (1983). *Fonologicheskiye Problemy obshego i vostochnogo Yazykoznaniya. [Phonological Problems of General and Oriental Linguistics]*. Moscow, Nauka Publishers.

Kuzmenko, Ju.K.(1991). *Fonologicheskaya Evolutsiya Germanskikh Yazykov. [Phonological Evolution of Germanic Languages]*. Leningrad, Nauka Publishers.

Lass, R. (1999). *The Cambridge History of the English Language*. v. III. 1476 – 1776. Chapter 3. Phonology and Morphology. Cambridge: CUP, 56-186.

Smirnitsky, A.I. (1955). *Drevneangliysky Yazyk. [The Old English Language]*. Moscow, Foreign Literature Publishers.

Wells, J.C. (1982). *Accents of English 3. Beyond the British Isles.* Cambridge, CUP.

Wells, J.C. (1990). Introduction. *Longman Pronunciation Dictionary.* Longman. x – xxviii.

Еще раз о месте английского языка в континууме фонемно-слоговых языков

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В статье рассматривается вопрос о структуре английского слога на фоне свойств других языков, типологически близких к английскому и далеких от него.

Ключевые слова: лингвистическая типология, структура слога, сдвиги в типологической аффилиации языков.

Научная специальность: 10.00.00 – филологические науки.