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JOSEF VACHEK

## PHONEMIC REMARKS ON THE 'SHORT MIXED VOWEL' OF MODERN ENGLISH

The short<sup>1</sup> mixed vowel ə of the Southern English Standard (further referred to as SES) constitutes a highly interesting problem if considered from the phonemic viewpoint. As is commonly known, the distribution of that vowel is characterized by particular unevenness. In stressed syllables it can occur only if preceded by *i*, *u*, *ε*, and, individually, also by *ɔ*, so that its occurrence in such positions is comparatively very rare; on the other hand, in unstressed syllables ə ranks as the first phoneme in regard to frequency. Statistical analyses<sup>2</sup> have even shown that its prevalence over the other vocalic phonemes found in unstressed syllables is so overwhelming that it is sufficient to ensure the short mixed vowel the leading place in the frequency list of all SES vowels, whether they occur in stressed or in unstressed syllables.

The recalled facts are easily explained as results of the well-known phonological changes characterizing the development of ModE from its earliest periods down to our days (especially of the reductions of vowels in unstressed syllables and of the influence of the consonant *r* on the preceding long vowels). It is, however, far less easy to interpret the same facts in phonemic terms; indeed, it can hardly be thought exaggerated if the phonemic evaluation of the ModE short mixed vowel is denoted here as one of the most arduous tasks the student of English phonic structure has to face.

The uneven distribution of the ə-vowel in ModE syllables has led students of phonemics to the formulation of a number of interpretations of that vowel; some of the most important will be discussed here at some length. The manner of interpreting ə is of course closely linked with the manner in which some other items of the English system of vowel phonemes are evaluated, and thus our discussion will sometimes have to consider broader issues than that of ə alone.

Some scholars, taking for granted the gliding nature of the SES ə-diphthongs, interpret all such SES diphthongs as monophonemes.<sup>3</sup> Viewed in this light, the cases of the short mixed vowel in stressed syllables readily become disposed of, and with them also the fact of the uneven distribution of the SES ə-vowel in stressed and unstressed syllables. The SES ə-vowel is thus relegated to the exclusive status of a reduced vowel and comes to be regarded as an intrinsic affair of the phonemic inventory of unstressed syllables. At first sight, the said interpretation seems to be recommended by the alleged gliding character of the SES centring diphthongs. But the gliding character of those diphthongs as wholes can hardly be considered definitely proved; more probably it is the mixed vowel alone to which the gliding articulation can be ascribed with certainty.<sup>4</sup> And even if the gliding nature of the centring diphthongs were proved beyond any

doubt, this would by no means guarantee the validity of their monophonemic evaluation. It has been aptly stressed that all monophonemic diphthongs are gliding sounds but that this statement cannot be reversed, i. e. that not all gliding diphthongs must necessarily be evaluated as monophonemes.<sup>5</sup>

In the cases of the SES centring diphthongs the improbability of their monophonemic interpretation is clearly proved by a number of facts, such as by the almost complete absence of articulatory and acoustic oscillation in the starting and ending points of the diphthongs (the oscillation is manifest in the *i-* and *u-*diphthongs, whose monophonemic value in the SES cannot be reasonably doubted).<sup>6</sup> Moreover, the qualitative identification of the initial and final points of the diphthongs with the individual short vowels existing in the language presents no appreciable difficulties in the *a*-diphthongs ( $i\bar{a} = i + \bar{a}$ ,  $u\bar{a} = u + \bar{a}$ ,  $\varepsilon\bar{a} = \varepsilon + \bar{a}$ , and, as the case may be,  $\bar{o} = \bar{o} + \bar{a}$ ), while in the *i-* and *u-*diphthongs serious obstacles must be faced in an attempt at an identification of the kind (thus, e. g., the supposed first elements of *ai*, *au* can be identified neither with  $\bar{a}$ , nor with  $\bar{A}$ , the only two vowels eligible for the purpose).

Finally it has been noted<sup>7</sup> that most of the SES centring diphthongs tend to become eliminated from the language. As is well known, the diphthong  $\bar{o}$  has been replaced by  $\bar{o}$ : in the pronunciation of the greatest part of SES speakers. It is equally well-known that in many instances  $u\bar{a}$  is giving way to  $\bar{o}$ : (see cases like *cure*, *endure*, *poor*, *sure* etc.). Instances of the elimination of  $i\bar{a}$ , though less numerous than in the case of  $u\bar{a}$ , can also be quoted (pronunciations of the words *year*, *here*/*hear* as [j $\bar{a}$ :] and [hj $\bar{a}$ :], respectively, are admittedly widespread).<sup>8</sup> Of all the four centring diphthongs existing in the SES, only  $\varepsilon\bar{a}$  appears unaffected by the eliminating tendency just referred to.

In this connection, one point deserves to be noted. All the above-mentioned eliminating processes unmistakably produce one and the same result: they do away with the cases of  $\bar{a}$  found in stressed syllables. As we have pointed out elsewhere,<sup>9</sup> this can hardly be due to mere chance: all the processes appear to be reducible to one and the same motive, i. e. they appear to tend towards a relegation of the  $\bar{a}$ -vowel to unstressed syllables alone. If this is so, an important conclusion appears unavoidable: the element  $\bar{a}$  of any SES centring diphthong is clearly recognized as forming a constituent part of such a diphthong. The acceptance of this conclusion naturally implies also the recognition of a separate status of the first component parts of the concerned diphthongs, i. e. of *i-*, *u-*, and  $\bar{o}$ , respectively (and indirectly, also of  $\varepsilon$  in  $\varepsilon\bar{a}$ ). In our opinion, the probability of the said conclusion is strongly upheld<sup>10</sup> by the two qualities of the centring diphthongs to which attention has been called above, viz. by the almost complete absence of articulatory and acoustic oscillation of their starting and ending points, and by the very easy manner in which the initial and final points of the centring diphthongs can be identified with the individual short vowels existing in the SES. All these facts taken together seem to speak conclusively for the biphonemic status of the centring diphthongs, and to disprove the validity of their suggested monophonemic interpretation.

If one accepts the thesis of the biphonemic character of the centring diphthongs and of the tendency aiming at their elimination in the SES, one must consistently acknowledge that in principle the short mixed vowel of the SES is indeed an affair of unstressed syllables, as the instances of  $\bar{a}$  found in stressed syllables represent recessive features of the system (one might almost say, historical survivals).<sup>11</sup>

Our attention must therefore be directed mainly to the  $\text{ə}$ -vowel of unstressed syllables and its phonemic interpretation. Here it should be recalled, first of all, that the SES  $\text{ə}$  in such syllables is regularly opposed only to  $i$  or to zero (cf. *ək'sept* : *ik'sept*, *trævl* : *trævlə*). It is well known, that from the distributional point-of-view the two vowels,  $i$  and  $\text{ə}$ , are not on the same footing. The former is abundantly found also in stressed syllables; although there is a marked articulatory and acoustic difference between the SES stressed and unstressed  $i$ -vowel, it can hardly be doubted that the two vowels represent one and the same phoneme. On the other hand, the SES unstressed  $\text{ə}$ -vowel has no adequate stressed counterpart with which it could be phonemically associated; the recessive character of the  $\text{ə}$ -vowel in the SES centring diphthongs has been already noted, and no other SES vowel found in stressed syllables appears to commend itself for an unmistakable phonemic identification with the unstressed  $\text{ə}$ -vowel. Ascribing the unstressed  $\text{ə}$  as an allophone to the stressed 'long'  $\text{ə}:$  would be unjustifiable in view of the parallel, and obvious, allophonic relation of the stressed  $i$  and unstressed  $i$  : it is among the 'short', not among the 'long' vowels that the allophonic partner of the unstressed  $\text{ə}$  is to be sought. But exactly these 'short' stressed vowels of the SES seem little suited for such partnership on account of the articulatory and acoustic dissimilarity of any of them to the unstressed  $\text{ə}$ .

It should be noted that in the short history of attempts at a phonemic interpretation of the unstressed  $\text{ə}$ -vowel we repeatedly come across phonemic identifications of the vowels  $\wedge$  and  $\text{ə}$ . To mention only some such attempts, as early as in the 'thirties this kind of interpretation was offered by Kemp Malone,<sup>12</sup> in the early 'forties it was again submitted, though on a distinctly different methodological basis, by G. L. Trager and B. Bloch.<sup>13</sup> It is worth noting that interpretations of this type are usually proposed by speakers using other standards than the SES — most frequently they are advocated by the Americans. This fact is not difficult to account for: in the pronunciation of American speakers the vowels  $\wedge$  and  $\text{ə}$  practically coincide in quality (the same can be said about the corresponding vowels of the Northern English standard).<sup>14</sup> In the SES, however, the articulatory and acoustic qualities of  $\wedge$  and  $\text{ə}$ , taken by themselves, can hardly justify a phonemic identification of the two vowels, as the two vowels represent two distinctly separate entities there.<sup>15</sup>

In our opinion, the phonemic identification of the SES vowels  $\wedge$  and  $\text{ə}$  is also hampered by the well-known facts of alternation caused by stress. Admittedly, the unstressed  $\text{ə}$ -vowel alternates with a number of SES stressed vowels and diphthongs. An alternation of  $\text{æ}/\text{ə}$  may be found in instances like 'man — -man, 'can — can, etc.; analogous types of alternations are  $u/\text{ə}$  in 'fully — 'hopefully etc.,  $\text{o}/\text{ə}$  in 'office — of'ficial etc.,  $e - \text{ə}$  in 'them — them etc.,  $\wedge/\text{ə}$  in 'suburb — sub'urban, 'but — but etc. Diphthongs alternate with  $\text{ə}$  in instances like  $ei/\text{ə}$ , as in 'able — 'comfortable, or  $ou/\text{ə}$ , as in 'protest — pro'test and the like. It should be realized that, if the phonemic evaluation of the SES  $\text{ə}$ -vowel as an allophone of  $\wedge$  should find acceptance, all the enumerated types of alternation would have to be phonemically interpreted as containing the phoneme  $\wedge$  in the quality of the unstressed partner. The phonemic evaluation of the types would then result in the establishment of the following pattern:  $\text{æ}/\wedge$ ,  $u/\wedge$ ,  $\text{o}/\wedge$ ,  $e/\wedge$ , and  $-\wedge/\wedge!$  (To this might be added the cases of  $ei/\wedge$  and  $ou/\wedge$ , established on the ground of those instances in which diphthongs alternate with  $\text{ə}$ .)

Even a casual examination of the pattern will reveal the striking inconsistency to which the discussed phonemic interpretation of  $\text{ə}$  is bound to lead if applied

to the situation found in the SES:<sup>16</sup> the alternation type  $\wedge/\partial$  becomes unduly separated from the rest of the enumerated alternation types. And yet it cannot be reasonably doubted that the mutual relation of the sounds  $\wedge$  and  $\partial$  in the SES pair is that of a full vowel opposed to a distinctly different reduced vowel, in other words, that it is clearly analogous to the mutual relation found in the other alternating pairs, and that it thus calls for an analogous phonemic interpretation. In our opinion, the only phonemic interpretation paying due respect to the described analogy of the concerned SES alternation types is the one that gives up all attempt at the assigning of  $\partial$ , in the quality of an allophone, to some vocalic phoneme occurring in stressed syllables, i. e. an interpretation that provides for independent phonemic status of the SES  $\partial$ .

It would be unwise to pretend that all phonemic problems can be solved by choosing the indicated solution. On the contrary, some new problems emerge, but they can be handled effectively if viewed from the proper angle and in the due context. One such problem must be particularly considered: if the SES  $\partial$  is acknowledged as a separate phoneme (whose occurrence, it will be remembered, is virtually restricted to unstressed syllables), this evaluation appears to be contradictory to L. Bloomfield's thesis that the independent phonemic status of  $\partial$  is incompatible with the distinctive (i. e. functionally relevant) part played by stress in ModE.<sup>17</sup> If, that is to say, stress alone is responsible for semantic differences between words whose phonemic structures can be interpreted as parallel, then all qualitative vocalic features occurring only in unstressed syllables must be taken for mere concomitant consequences of the operation of stress, and thus must not be regarded as phonemic in themselves. This might be the case of Russian instances of the type *pl* $\wedge$ '*ču* (I pay) — '*plaču* (I weep), in which  $\wedge$  is evaluated as an allophone of *a*, or of English cases like *im*'*pɔ:t* — '*impɔ:t*, in which the unstressed *i*, though distinctly different in quality from its stressed counterpart '*i*, is nevertheless phonemically identified with it. And even in those instances in which such an exclusively unstressed vowel of reduced quality cannot be phonemically classed together with the stressed vowel alternating with it, it should be functionally indistinguishable with some other vowel common in stressed syllables. Such is, e. g., the case of Russian *gəl* $\wedge$ '*va* — '*golovu*, in which the  $\partial$  of *gə*- is phonemically assigned to the stressed *a*,<sup>18</sup> though it alternates with *o*; similarly, the unstressed *i*-vowel in SES *pri*'*zent* is identified with the stressed *i*, in spite of its alternation with the stressed *e* in SES '*prezent*.

If Bloomfield's theory is true — and from the theoretical viewpoint it appears basically sound — how can our establishment of the SES  $\partial$  as a separate phoneme be reconciled with it?

In our opinion, the reconciliation is easily obtained, if one evaluates the SES  $\partial$  as an interesting case of anomaly present in the SES pattern of vowel phonemes. The anomalous character of the SES  $\partial$  is clearly reflected in the incongruity of *i* and  $\partial$ , the only two vowel phonemes regularly found in unstressed syllables of the SES. While *i* can be phonemically assigned to the 'short' *i*-phoneme of the stressed syllables, in the case of  $\partial$ , as has been shown above, no such assignment can be qualified as particularly successful. Our above developments have shown how little convincing force attaches to the theory suggesting the possibility of identifying phonemically the SES vowels  $\wedge$  and  $\partial$ . Thus, if all circumstances, of both qualitative and distributional order, are duly taken into account, one conclusion appears sound. There is only one stressed vowel of the SES which might, on safe theoretical grounds, claim the phonemic subordination of unstressed  $\partial$ : it is

the ə-vowel found in biphonemic centring diphthongs. But the above-established tendency, aimed at the elimination of most types of ə-diphthongs from the SES, revealed the recessive character of this diphthongal category in the SES. As a consequence of this, the unstressed ə-vowel of the SES is being increasingly deprived of its only chance of finding a stressed vocalic partner to which it could be assigned as an allophone. In other words, the unstressed ə-vowel finds itself increasingly isolated in the phonemic pattern of the SES vowels, and its chances of securing in that pattern an adequate place, compatible with what has been said above of the distinctive function of stress in English, seem to be slimmer than ever. Thus, the anomalous position of the unstressed ə-vowel in the SES appears to stand out with particular clearness.

It will be of some interest to inquire into the origins of this anomalous phonemic status of the SES short ə-vowel. Detailed consideration of the phonological development of English will reveal that the SES ə must have acquired the status of a phoneme after the emergence of the short mixed vowel in stressed syllables, i. e. some time in the 17th century. At that time the former ME *u* must have reached the position of an unrounded ə-vowel,<sup>19</sup> so that it can have become phonemically associated with the cases of *e* that had been in existence in unstressed syllables for at least one century (and probably much longer); before the rise of the stressed ə-vowel, these unstressed instances of the mixed vowel must have been regarded as allophones of some of the short stressed vowels, most probably *e*.<sup>20</sup>

Owing to a specific situation characterizing the EModE vocalic pattern<sup>21</sup> the SES stressed ə-vowel was further shifted to ʌ (this change most probably occurred at the beginning of the 18th century).<sup>22</sup> It is interesting to note that the accomplishment of that change was not seconded by a parallel change in the unstressed syllables. This lack of parallelism can be accounted for by two reasons. Firstly, the neutral (i. e. mid-mixed wide) quality of the original vowel may have been found more suitable for an unstressed, reduced alternant sound which was to occur in opposition to a number of full, unreduced vowels of different qualities. Secondly, and this was probably even more important, the change of ə > ʌ in unstressed syllables may have soon become unnecessary on account of the emergence in stressed syllables of another kind of ə-vowel to which the unstressed ə-vowel could be assigned as an allophone. This new specimen of mixed vowel, found in centring diphthongs, appears to have existed in English since the end of the 15th century,<sup>23</sup> but obviously had not acquired the status of a separate phoneme in the SES before the latter half of the 18th century, in the course of which the consonant *r*, originally following diphthongs of that kind, became ultimately dropped.<sup>24</sup> Until that time the SES element ə had hardly been more than a transitory sound, naturally arising between the long vowel and the following *r* (whose original articulation had most probably been an inverted one).<sup>25</sup> Thus for a time, the unstressed ə-vowel consolidated its position in the phonemic pattern of the SES vowels. But this position was never particularly strong, as the occurrence of the ə-vowel in stressed syllables was limited to centring diphthongs only. One might even say that in order to maintain its phonemic status, the SES ə-vowel of the stressed syllables needed the support of the unstressed ə-vowel almost as much as the latter needed the support of the former. The above-noted SES tendency, increasingly striving at the elimination of centring diphthongs, is responsible for the fact that, viewed phonemically, the SES unstressed ə-vowel is constantly losing ground, and confronted with the structure

of the present-day SES phonemic system, already begins to loom as a kind of anomaly.<sup>26</sup>

The presence of such cases of anomaly in the phonemic systems of modern cultural languages can hardly surprise anyone who is aware that such systems are regularly subjected to the operation of powerful factors retarding the process of development. As is commonly admitted, practically all cultural and civilizational institutions (such as schools, theatres, films, broadcast, sermons, talks etc.) work in this direction, and their retarding influence will be especially strong in those language communities in which some sort of fixed orthoepic norm became established at a relatively early period. It is well known that precisely this happened in Southern England where, as early as in the 17th century, the culture of the spoken word came to be regarded as one of the qualifications indispensable for those claiming social respectability. The retardation due to this factor will naturally be reflected with particular clearness in the phonic plane of the cultured language; the tendencies operating in that plane will sometimes appear almost halted. It may even happen at times, as a consequence of this, that such elements will be found in the phonic plane as will appear as survivals, whose continued existence in the system does not conform very well to the latter's general tenor, and which can only be qualified within that system as anomalous features.<sup>27</sup>

It is worth pointing out, however, that despite the powerful influence of such retarding factors, tendencies counteracting this influence can usually be discerned with sufficient clearness, although in a number of cases the strong pressure exercised by cultural and civilizational institutions does not allow such counteracting tendencies to achieve the goals they are aiming at.

In the case of the anomalous phoneme  $\partial$  an interesting tendency of that kind can be observed in the SES. A number of scholars<sup>28</sup> have noted that in the pronunciation of some SES speakers the final, unstressed  $\partial$  is often replaced by  $\wedge$ , and an analogous change has been observed in the  $\partial$ -vowel of the centring diphthongs  $i\partial$ ,  $e\partial$ . From the phonemic viewpoint, such changes can only be interpreted as a remarkable attempt to remove the obstacles that have so far prevented the phonemic identification of the SES vowels  $\partial$  and  $\wedge$ . It will be admitted, first of all, that the mentioned tendency undoubtedly brings the vowels  $\partial$  and  $\wedge$  into allophonic relation, if only in unstressed syllables. The establishment of this relation is able to bridge the articulatory and acoustic gap that has so far existed between the two vowels and constituted one of the main reasons standing in the way of their phonemic coordination: The qualitative identity of the stressed  $\wedge$ -vowel and the unstressed allophone  $\wedge$  will facilitate their phonemic identification, while the allophonic relation existing between the unstressed  $\partial$  and  $\wedge$  will guarantee that also the unstressed  $\partial$ -vowel, like the unstressed  $\wedge$ , will be phonemically assigned to the stressed  $\wedge$ -vowel as its allophone without any hesitation. The assignment will be rendered particularly easy by the fact that the above-mentioned tendency also aims at discarding the  $\partial$ -element from centring diphthongs, replacing it again, at least in some instances, by the  $\wedge$ -element. Thus the tendency not only strives for the closest phonemic coordination of the SES  $\partial$ - and  $\wedge$ -vowels in both stressed and unstressed positions, but at the same time remarkably conforms to the trend (noted earlier in this paper) directed towards the elimination of the  $\partial$ -vowel from the stressed syllables of the SES.

It will have been observed that the operation of the tendency described in the preceding paragraph is obviously aimed at the elimination of the systemic ano-

maly attaching to the SES phoneme ə. The described changes, that is to say, tend to abolish the incongruity so far existing between the SES unstressed vowels i and ə: if the tendency should prevail, either of these two vowels would constitute an allophone of some other vocalic phoneme found in the stressed syllables.

The above analysis of the phonemic situation found in the SES appears to be corroborated by facts concerning the restressing of the reduced ə-vowel. Some scholars<sup>29</sup> have noted that in the speech of actors and reciters ə becomes restressed into ʌ even in those words in which ə was due to the reduction of some other stressed vowel phoneme. Thus words like *av*, *frəm*, and are pronounced as ʌv, frʌm, ʌnd, and even the indefinite article ə is restressed into ʌ. This fact may justly be quoted in support of the theory of the incipient phonemic fusion of the SES vowels ə and ʌ; it will be recalled that L. V. Shcherba availed himself of a similar argument when interpreting the Russian sounds ə and ʌ (as in *gal* ʌ 'va) as allophones ("ottenki") of the a-phoneme on the ground that in singing the only acceptable pronunciation of the quoted Russian word is *ga-la-va*.<sup>30</sup>

An interesting variant of the above-discussed problem of the phonemic value of unstressed vowels may be observed in American English. There, of course, the phonemic situation of such vowels distinctly differs from that found in the SES. As noted earlier in the present paper, the acoustic and articulatory resemblance of the vowels ʌ and ə in the General American type of pronunciation (the type which is both most widespread and most typical) is so close that the phonemic identity of the two vowels is commonly taken for granted. On the other hand, the unstressed ɪ-vowel and its stressed counterpart 'i differ much more perceptibly in General American (to be further denoted as GA) than the corresponding i-vowels of the SES. According to J. S. Kenyon, the GA unaccented ɪ-vowel is sometimes pronounced as low as ε, especially in non-final accented positions, such as in *limit*, *added*, *roses*, *goodness*.<sup>31</sup> Under these circumstances it may be inferred that, from the phonemic viewpoint, the GA unstressed ɪ occupies a much less clearly delimited position in the GA pattern of vowel phonemes than its SES counterpart in the vocalic pattern of the SES. And in view of the fact that the phonetically less clearly delimited ɪ-vowel alternates with a number of stressed vowels of full, unreduced qualities (with ɪ in *ha* 'bitual — 'habit, with i in 'meter — *ther* 'mometer, with ε in 'present — *pre*'sent, with e(ɪ) in 'day — 'Sunday, with aɪ in 'my — *my*'self etc.) one may be even tempted to regard this GA unstressed ɪ-vowel as an item that is becoming phonemically separated from its stressed counterpart, and in consequence, gradually acquiring the character of an anomalous feature within the GA vocalic pattern of phonemes. If this phonemic analysis of the GA situation is correct, then the position of the unstressed ɪ in GA may be denoted as one that is clearly akin to the position of unstressed ə in the SES.

The probability of the suggested phonemic analysis appears to be strikingly born out by new developments recently registered in the pronunciation of the New York City dialect. According to the observation of Allan F. Hubbell,<sup>32</sup> this dialect reveals a distinct tendency aimed at merging the two unstressed vowels into one phoneme. The operation of the tendency, as described by Hubbell, can be ascertained from the fact that in some situations, such as before *k*, *ŋ*, the vowel ɪ tends to prevail over ə; in others again, such as before *m*, *l*, the vowel ə predominates. As a result of this process, words like *accept* and *except* are said to be becoming homonymous. In other positions<sup>33</sup> there appears to be free interchange of ɪ and ə (this refers particularly to vowels found in inflexional endings, as in *raises*, *colleges* etc.).



The observation recorded by Hubbell is certainly of first-rate importance, and due phonemic consequences must be derived from it. Hubbell himself attempts to do so in the following statement: „In the New York dialect the assignment of schwa-like vowels (i. e. of reduced vowels of the  $\alpha$ -type, J. V.) to the vocalic phoneme of *luck* and *fun*, and of unstressed [i]-like vowels to the vocalic phoneme of *lick* and *fin* obviously will not do. The phonetic facts are far better explained and more simply set forth if we conceive of a separate phonemic category in which all stressed-vowel oppositions are suspended.”<sup>34</sup> At first sight, the quoted conclusion appears ingeniously apt to explain the particular phonemic situation that has developed (or rather, has been developing) in the dialect of New York City. It has the disadvantage, however, of being opposed to L. Bloomfield’s thesis urging that an independent phonemic status of unstressed vowels is incompatible with the distinctive part played by stress in ModE.<sup>35</sup>

In our opinion, the phonemic lesson to be drawn from Hubbell’s phonetic findings is a different one, and appears to be prompted by the analogous SES situation whose phonemic analysis has been presented above. Viewed in the light of the SES analogy, it appears obvious that the changes registered by Hubbell tend to abolish (or, possibly, to forestall) the systemic anomaly found (or, possibly, soon to be found) in GA, viz. the independent phonemic status of the unstressed *i*-vowel. The New York City dialect tends to eliminate the said anomaly by its attempt to reevaluate the unstressed *i*-vowel into an allophone of the  $\wedge/\beta$ -phoneme. If the tendency has not yet asserted itself on a large scale in other varieties of GA, this may be safely explained by the fact that the lowering of the unstressed *i*-vowel, though undoubtedly fairly well advanced, has not yet progressed everywhere far enough to necessitate its definite phonemic separation from the stressed *i*, and to ensure the establishment of its own, independent phonemic status.

Our above developments will have shown that even in orthoepically highly stabilized languages, called upon to act as means of mutual communication in extremely complicated cultural and civilizational contexts, problems of phonemic structures do exist, and that attempts aimed at solving such problems are incessantly at work, though handicapped by the very complexity of cultural and civilizational contexts in which such language systems have to function. The persistent, though not always successful, character of such attempts is nothing but a natural consequence of the necessity to maintain, exactly and especially in the basic plane of language, clear and unambiguous relations of phonemes, the elementary items constituting that plane. If, that is to say, the phonemes of a language are not well-spaced and distinctly kept apart, then the functioning of the higher planes of that language (grammatical and lexical) is bound to be less smooth and less adequate to the numerous, often complex and highly specialized tasks with which the two planes have to cope.

#### NOTES

<sup>1</sup> [The use of the traditional terms ‘short’ and ‘long’ in this paper should be regarded as purely conventional; from the phonemic viewpoint the respective terms ‘free’ and ‘checked’ would be more adequate.

<sup>2</sup> The fact was clearly revealed by statistical analyses of ModE texts carried out in the English Seminar of the Brno University; contexts subjected to this examination amounted to more than 300,000 phonemes.

<sup>3</sup> See, e. g., B. Trnka, *A Phonological Analysis of Present Day Standard English* (Facultas philosophica univ. Carolinae Pragensis, *Práce z vědeckých ústavů*, vol. 37), Prague 1935, p. 14; similarly N. S. Trubetzkoy, *Prinzipien der Phonologie* (Travaux du Cercle Linguistique de Prague 7), Prague 1939, p. 103 f. — The so-called triphthongs of the type *aiə*, *auə*, formerly also evaluated monophonemically, are now generally admitted to constitute biphenemic groups of the type *ai + ə*, *au + ə*.

<sup>4</sup> For a detailed argument on this point, see J. Vachek, *Ueber die phonologische Interpretation der Diphthonge mit besonderer Berücksichtigung des Englischen* [further referred to as *Diphthonge*] (Facultas philosophica univ. Carolinae Pragensis, *Práce z vědeckých ústavů*, vol. 33), Prague 1933, p. 128 ff.

<sup>5</sup> Cf. N. S. Trubetzkoy, *op. cit.*, p. 51.

<sup>6</sup> Of the interpretations contrary to this view the most widely known is certainly that of G. L. Trager and B. Bloch, put forward in their paper *The Syllabic Phonemes of English* (*Language* 17, 1941, pp. 225 ff.). The authors evaluate ModE *i-* and *u-* diphthongs as biphenemic groups of the type 'vowel + *j*' or 'vowel + *w*' respectively. On the inadequacy of such interpretations see J. Vachek, *Yaleská škola a strukturalistická fonologie* (*Slovo a slovesnost* 11, 1949, pp. 36 ff.). — Analogous objections could be raised against a more recent version of this interpretation, submitted by G. L. Trager and H. L. Smith, Jr. in *An Outline of English Structure* (Norman 1951, aptly criticized, among others, by H. Pilch in *Word* 11, 1955, p. 73), as well as against the biphenemic theory put forward by W. Merlingen in his paper *Zur Phonologie der englischen Diphthonge und langen Vokale* (*Acta Linguistica* 6, 1950 — 1, pp. 73 ff.). Merlingen's conclusions, though somewhat less fantastic than those of the Americans, suffer from an equally unjustifiable disregard both of stubborn phonetic facts and of general historical perspective.

<sup>7</sup> On this point, see J. Vachek, *Diphthonge*, p. 131 f.

<sup>8</sup> As far as we were able to ascertain, D. Jones registers this type of pronunciation also in the following words: *dear*, *inferior*, *near*, *pierce*, *sincere*, *superior* (see his *English Pronouncing Dictionary* . . ., London 1947).

<sup>9</sup> See J. Vachek, *Diphthonge*, pp. 132.

<sup>10</sup> It is also upheld, though indirectly, by the development found in the Cockney dialect of English. According to the observation of Ida C. Ward (*The Phonetics of English*, Cambridge 1945, pp. 120 ff.), in Cockney the centring diphthongs are not infrequently replaced by disyllabic groups in which the two elements originally composing the diphthongs have become separated by *j* or *w*, and consequently divided into two successive syllables (thus, the Cockney counterpart of the SES *iə* is often *ijə*; analogous pairs are SES *uə* — C *ōwə*, SES *ɛə* — C *ɛjə*). If the Cockney developments of the English centring diphthongs are compared to the SES developments reflected by the phenomena mentioned above, it will be readily seen that the only common denominator of both kinds of development can be the tendency to restrict the occurrence of the phoneme *ə* to unstressed syllables alone. The Cockney method of achieving that aim is the more remarkable as it solves the problem on an even wider scale than the method adopted by the SES: the diphthong *ɛə*, unaffected by the eliminating tendencies in the SES, becomes discarded in Cockney together with the other centring diphthongs.

<sup>11</sup> The way in which the *ə*-phoneme of the centring diphthongs originated in the course of the history of English will be discussed later on.

<sup>12</sup> Kemp Malone, *Phonemes and Phonemic Combinations in Current English*, *English Studies* 18, 1936, pp. 159 ff. In his later contributions on the subject Prof. Malone has modified his views on this point.

<sup>13</sup> In their paper quoted above in Note 6. — See also B. Bloch's paper *Phonemic Overlapping*, *American Speech* 16, 1941, pp. 278 ff.

<sup>14</sup> See, e. g. D. Jones, *Λ and ə in British English*, *Le Maître Phonétique*, janvier—juin 1946, p. 2.

<sup>15</sup> On this point, see also D. Jones's latest monograph *The Phoneme* (Cambridge 1950), esp. §§ 202 ff.

<sup>16</sup> It is worth pointing out that the application of Bloch and Trager's theory to the conditions found in the SES can hardly be regarded unfair: the American authors state expressly that although their theories are based on the American type of pronunciation, their conclusion may be applicable to other standards of English as well. — The question concerning the validity of the suggested interpretation for American English will be touched later on.

<sup>17</sup> Cf. B. Bloch, *Phonemic Overlapping* (see here Note<sup>13</sup>), esp. pp. 281 f.

<sup>18</sup> See L. V. Shcherba, *Russkie glasnye v kachestvennom i kolichestvennom otnoshenii*, S.-Petersburg 1912, p. 95.

<sup>19</sup> See K. Luick, *Historische Grammatik der englischen Sprache*, Leipzig 1914—40 [further quoted as HG], §§ 529 ff. — W. Horn and M. Lehnert, *Laut und Leben*, Berlin 1954 [further referred to as LL], § 94 and pass., prefer to regard the sound as a delabialized  $\varphi$  or  $\varphi$ . — In H. Kökeritz's opinion, by the end of the 16th century [sic! J. V.] the ME  $u$ -sound "had obviously become an unrounded, centralized, lowered vowel, qualitatively not very different from modern [ʌ]" (Shakespeare's Pronunciation, New Haven 1953, p. 240). Both descriptions undoubtedly refer to a quality similar to, but not identical with, that of ModE ʌ, which renders the 17th century phonemic identification of the concerned stressed vowel and the unstressed  $\varepsilon$  as good as certain.

<sup>20</sup> See K. Luick, HG §§ 589 ff.

<sup>21</sup> Cf. K. Luick, HG § 561, also Anm. 1.

<sup>22</sup> This dating appears to be most probable in view of further phonemic development (see below). On the ground of objective evidence no exact dating seems possible (cf. W. Horn — M. Lehnert, LL § 96); although K. Luick is inclined to ascribe the ultimate establishment of the SES ʌ to a distinctly later period, viz. to the end of the 18th or the beginning of the 19th century, he frankly admits the difficulties involved in fixing the date („die Zeit des Ueberganges ist schwer zu bestimmen“, HG § 563).

<sup>23</sup> Cf. K. Luick, HG § 505 f.

<sup>24</sup> Cf. K. Luick, HG § 567. — According to W. Horn — M. Lehnert (LL § 431 f.), in colloquial speech the change must have taken place earlier than is generally assumed. Here, as elsewhere, the popular pronunciation may have anticipated the phonemic solution to be later adopted by the SES; it is only logical to conclude that the popular pronunciation also reached the stage of ʌ for ME  $\varepsilon$  correspondingly earlier than the SES.

<sup>25</sup> See K. Luick, HG § 567 f. — It can be assumed that the stage immediately preceding the ultimate loss of  $r$  was one in which the articulation of the consonant  $r$  was only 'indicated' in a manner analogous to the one still found in Northern English [= NE]. As is generally known, in the NE standard this 'indication' of  $r$  is effected towards the end of the articulation of the  $\varepsilon$ -vowel by the simple device of turning the tip of the tongue against the palate (see K. Luick, HG § 566 ff; R. J. Lloyd, *Northern English*, Leipzig 1899, § 100 ff). From the phonemic viewpoint, this articulation must have still been evaluated as the phoneme  $r$ , preceded by a transitory, i. e. non-phonemic  $\varepsilon$ -sound.

<sup>26</sup> It is certainly worth noting that in the NE Standard where the former ME stressed  $u$ -vowel appears to have preserved the quality of  $\varepsilon$  (see, e. g. K. Luick, HG § 563; cf. also above Note 14), the  $\varepsilon$ -sound corresponding to the one found in the SES centring diphthongs has not acquired the phonemic status owing to the inverted articulation of the final stage of the  $\varepsilon$ -vowel; such articulation can hardly be interpreted otherwise than as a proof of the continued existence of the  $r$ -phoneme in such positions (see above Note 25). In the NE Standard, therefore, those unstressed  $\varepsilon$ -vowels which are not characterized by the inverted articulation must be phonemically assigned to the stressed ʌ-vowel (as in *but*, *love*). — In the General American Standard, where even the preconsonantal  $r$  has preserved its inverted articulation and where the inverted pronunciation of the final stage of the  $\varepsilon$ -sound in instances like *here*, *fair*, *poor* etc. is even more strongly marked than is the NE Standard, there can be no doubt whatever of the phonemic preservation of  $r$  and of the purely transitory character of  $\varepsilon$  in such cases. There, too, the instances of unstressed  $\varepsilon$ -vowels obviously constitute allophones of the stressed vowel found in words like *but*, *love*. In its quality this vowel perceptibly differs from the ʌ-vowel corresponding to it in the SES, while the articulatory and acoustic similarity of the General American vowel to the unstressed  $\varepsilon$  is much closer than in their SES counterparts. (Cf. J. S. Kenyon, *American Pronunciation*,<sup>9</sup> Ann Arbor 1946, §§ 84, 322). If it is asked why the American stressed  $\varepsilon$ -vowel has not reached the stage of the SES ʌ, the answer is not far to seek. The point in the vocalic pattern which the SES stressed  $\varepsilon$ -vowel was ultimately bound to reach was firmly held in the General American Standard by the  $a$ -phoneme, corresponding to the SES  $\varepsilon$  (as in *dog*, *hot*).

<sup>27</sup> Apart from  $\varepsilon$ , other cases of systemic anomaly can be found in the SES phonemic pattern. The most interesting of them is perhaps the case of  $h$ , which, incidentally, has been virtually discarded in the Southern and Midland English dialects, unhandicapped by the retarding factors discussed above. For the phonemic problems connected with the SES sound  $h$ , see the present writer's paper *Foném h/χ ve vývoji angličtiny* (with a brief summary in English), SPFFBU I-A, 1952, pp. 121 ff.

<sup>28</sup> See, e. g. K. Luick, HG § 614. D. Jones, *An Outline of English Phonetics*,<sup>9</sup> New York 1940, § 362; I. C. Ward, *The Pronunciation of English*,<sup>4</sup> Cambridge 1945, § 183; W. Horn — M. Lehnert, LL § 325-6.

<sup>29</sup> Cf. W. Horn — M. Lehnert, LL § 326. — For American English, see analogous obser-

vations of J. S. Kenyon, Amer. Pron., § 139 and Nathaniel M. Caffee in American Speech 26, 1951, pp. 104 ff. (See also below Note 35.)

<sup>30</sup> See L. V. Shcherba, Russkie glasnye, p. 95.

<sup>31</sup> See J. S. Kenyon, Amer. Pron., § 255. — The high mixed wide *i*-vowel (the 'barred *i*' of Trager and Smith, Outline, p. 14 and 20) has been disregarded here; for all that has been recently written about it (see, e. g., H. A. Gleason, An Introduction to Descriptive Linguistics, New York 1955, p. 231f.), its phonemic status in the GA standard can hardly be regarded as definitely proved. Its detailed discussion, however, must be left to some other occasion.

<sup>32</sup> Allan F. Hubbell, The Phonemic Analysis of Unstressed Vowels in English, American Speech 25, 1950, pp. 105 ff. — Hubbell's monograph on the pronunciation of English in New York City has not been accessible in this country.

<sup>33</sup> Exceptions to this are the instances of posttonic final *-y*, *-ies*, *-ied*, pronounced in the dialect as *i*, *iz*, *id* (corresponding to the SES *i*, *iz*, *id*). Here the continued unreduced pronunciation of the vowel *i* is due to the preservation of secondary stress. It deserves to be noted that evidence for an analogous unreduced, long pronunciation of the final *i*-vowel can also be found in EModE (see Horn-Lehnert, LL § 316). — The presence of full vowels in instances like *advisory*, *unite* [ɪd-, ju:-] is explained away by the American author as due to the fact that in such cases it is doubtful whether the vowel exhibits 'the weakest degree of stress'. To this it could be added that in such cases one usually has to do with words of foreign character, in which deviations from the normal phonemic distribution can be frequently found.

<sup>34</sup> See the quoted paper, p. 110.

<sup>35</sup> See above Note 17. The said disadvantage was keenly realized by Nathaniel M. Caffee in his paper The Phonemic Structure of Unstressed Vowels in English, American Speech 26, 1951, pp. 103 ff. Caffee's own phonemic explanation, suggesting "that the phonemic structure of the vowels of unstressed syllables could be arranged in a classification dependent upon the phonemes of the stressed vowels" (p. 103) does not seem more commendable, as it fails to draw a clear dividing line where any sound phonemic analysis is obliged to draw it, viz. between stressed and half-stressed syllables on one hand, and the wholly unstressed syllables on the other. Nevertheless, some of Caffee's observations are most illuminating, e. g. those which quote instances of re-stressing *ə* into *ʌ* in American English, see esp. pp. 104–106 of the quoted paper. (Cf. also above Note 29.)

## FONOLOGICKÉ POZNÁMKY K NOVOANGLICKÉ 'KRÁTKÉ MIXED VOWEL'

Fonologické hodnocení novoanglické samohlásky *ə* je velmi ztěžováno jednak jejím nerovnoměrným výskytem v slabikách přízvukných a nepřízvukných, jednak nejistotou, jak vykládat novoanglické *t*. zv. dostředné dvojhlásky. Autor článku vychází ze svého staršího dvojfonémového hodnocení těchto dvojhlásek. Poukazuje na tendenci směřující k jejich likvidaci jak v jihoanglickém standardu, tak v lidovém nářečí Cockney a vyvozuje z ní závěr, že *ə* je v dnešním jihoanglickém standardu samostatným fonémem, ovšem omezeným v zásadě na slabiky nepřízvukné.

Existence takového fonému je však v rozporu s nepochybnou funkční platností dynamického přízvuku v angličtině. V důsledku tohoto rozporu je podle autora nutno foném *ə* v jihoanglickém standardu hodnotit jako systémovou anomálii, obdobnou jiným anomáliím, s jakými se ve fonologických systémech spisovných jazyků, orthoepicky přísně normovaných, leckdy setkáváme. Autor pak načrtává vývoj, který vedl ke vzniku tohoto anomálního fonologického rysu, a upozorňuje na některé novější hláskové jevy svědčící o tom, že se v jihoanglickém standardu projevují tendence, jež usilují o odstranění této systémové anomálie. Všímá si při tom i poměrů v jiných standardech angličtiny, jako v severoanglickém a v General American, a ukazuje na podobnou fonologickou situaci v americké angličtině, kde se anomálním prvkem systému stává nepřízvukné *ɪ* a kde se rovněž začínají projevovat snahy o odstranění této anomálie.

V závěru autor zdůvodňuje snahu o odstranění fonologických anomálií tím, že jasné vzájemné vztahy mezi složkami plánu fonologického vydatně přispívají k tomu, aby vyšší jazykové plány, především gramatické a lexikální, byly s to uspokojivě dostát svým úkolům, často vysoce složitým a specializovaným.

## ФОНОЛОГИЧЕСКИЕ ЗАМЕТКИ К НОВОАНГЛИЙСКОЙ „КРАТКОЙ MIXED VOWEL“

Фонологическая оценка новоанглийского гласного э очень затрудняется, с одной стороны, неравномерным его употреблением в ударяемых и неударяемых слогах, а, с другой стороны, неуверенностью в толковании новоанглийских т. наз. centring diphthongs. Автор предлагаемой статьи исходит из прежней своей двуфонемной оценки этих дифтонгов. Он отмечает стремящуюся к их ликвидации тенденцию в южноанглийском стандарде, а также в народном говоре Кокни; отсюда делает вывод, что э в современном южноанглийском стандарде выступает в качестве самостоятельной фонемы, принципиально ограниченной, конечно, неударяемыми слогами.

Однако наличие такой фонемы противоречит несомненной функциональной значимости динамического ударения в английском языке. В результате такого противоречия необходимо, по мнению автора, оценивать фонему э в южноанглийском стандарде как системную аномалию, имеющую свое соответствие в других аномалиях, которые кое-где встречаются в фонологических системах литературных языков, даже строго нормированных в орфоэпическом отношении. Затем автор обрисовывает пути развития, вызвавшие эту аномальную фонологическую черту, и обращает внимание на некоторые новые фонетические явления, свидетельствующие о том, что в южноанглийском стандарде обнаруживаются тенденции, направленные на устранение подобной системной аномалии. В связи с этим он касается также положения в других стандардах английского языка, в частности в североанглийском и General American, и указывает на подобную фонологическую ситуацию в американском английском языке, где аномальным элементом системы становится неударяемое I, и где также начинают проявляться стремления к устранению этой аномалии.

В заключении автор обосновывает стремление к устранению фонологических аномалий тем, что ярко выраженные взаимоотношения между составными частями фонологического плана в значительной мере способствуют тому, чтобы высшие планы языка, в особенности грамматический и лексический, в состоянии были удовлетворительно исполнять возлагаемые на них требования, часто в высшей степени сложные и специализованные.

*Перевод: Р. Мравек*