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NOTES ON THE PHONOLOGICAL DEVELOPMENT
OF THE NE. PRONOUN *SHE**

Dedicated to the memory of Professor Adolf Kellner

I. In one of his earlier papers (1) the present writer proposed a theory emphasizing the part played by the quantitative aspect of phonic phenomena in the development of language. In the said paper a number of cases were pointed out in which one may observe a distinct tendency to discard from the language such phonemes as are utilized only to a very slight extent, and thus prove to be so uneconomic items as to have no solid foothold in the phonemic system of that language. It was shown in that paper that the said tendency can account for the loss of EME voiceless phonemes *R, L, N* (going back to OE clusters *hr-*, *hl-*, and *hn-* respectively) which soon became substituted by the phonemes standing closest to them in the EME phonemic system, i. e. by the respective voiced phonemes *r, l, and n*. For this reason, OE words of the types *hræfen*, *hlūd*, *hnutu* are represented in NE by the corresponding forms *raven*, *loud*, *nut* (the EME forms of the words were *Raven*, *Lūd*, and *Nute*).

The paper quoted in Note 1 will also have clearly demonstrated the fact that our theory of the tendency trying to discard slightly utilized phonemes can throw some new light on a number of moot points still found in the phonological development of English. The present paper wants to submit another case of evidence for the thesis urging that the above-mentioned theory may enable us to obtain a clearer insight into the concrete problems of language development. The case to be dealt with is that of the NE personal pronoun *she*, the history of which has not yet been satisfactorily explained in all its points.

Of all the EME forms of our pronoun, those of the East Midland dialects will serve as the starting point of our discussion, because the dialects of that area were to afford a basis on which the Southern English Standard of the present day was to develop. As is generally known, the EME forms of the feminine personal pronoun in that area are commonly denoted in grammars as *ʒh̄e*, *ʒh̄e*, alternating sometimes with *ʒe*, *ʒe*. (2) The phonic values lying behind these writings appear to have been [çø:, çe:], with the alternatives [jo:, je:]. As to their origin, the forms *ʒh̄e*, *ʒh̄e* are traced back, by common consent, to the OE pronominal form *hēo*, and possibly also to the accusative form *hīe*, which, owing to its gradual replacement in the accusative function by the dative form *hire*, was free to be utilized in other functions. The ultimate victory of the form ending in *-e* should obviously be attributed to the influence of the masculine form of the same pronoun, i. e. *hē*. It is generally

taken for granted that in the whole process leading from *hēo* to *çō* (or, respectively, from *hīe* to *çē*) the first step must have been the shift of balance in the falling diphthong *ēq* (or, respectively, *īq*). The shift was probably due to loss of stress (see K. Luick, *Historische Grammatik der englischen Sprache*, 1914-40 [to be referred to as HG in the following lines], §§ 266, 360) and resulted in the formation of the rising diphthong *īō* (or *īē*, respectively). In the pronominal forms *hīō*, *hīē*, the initial *hē-/hī-* "melted into a voiceless *ç*" (K. Luick, HG § 705), i. e. into [ç].

The above-described mutual relation of OE *hēo/hīe* and EME *ʒhō/ʒhē* is so obvious as to be generally accepted. Much less clear, however, is the relation existing between the NE form *she* and the EME *ʒhō/ʒhē*, and scholars widely disagree on this point. Quite a number of them, beginning with L. Morsbach in the late 'eighties (*Ursprung der ne. Schriftsprache*, Heilbronn 1888, see p. 121), refuse to admit a direct descent of the ME form *schē*, the predecessor of NE *she*, from the EME form *ʒhō/ʒhē*. In their opinion, *schē* goes back to the OE demonstrative pronoun *sēo* (the stages of the process being *sēq* > *sēō* > *sīō* > *schō*); -*ē* is again explained as due to the influence of the masc. form *hē*. As a typical representative of the scholars holding this view we may mention H. Bradley, who expressly rejects the possibility of explaining the form *she* from OE *hēo/hīe* (see the *New English Dictionary*, s. v. *She*).

Only a minority of scholars have regarded the ME [š-] in *schē* as a direct continuation of EME [ç]. The first to do so was G. Sarrazin almost sixty years ago (see his paper *Der Ursprung von ne. 'she'*, *EStn* 22, 1896, pp. 330f.). Sarrazin's view was endorsed, though in a slightly modified form, by K. Luick (HG § 705), in whose opinion the [š-] of *schē* is to be taken for a sound substituting the earlier [ç-], at least in the East Midland dialects. It is worth noting that Luick speaks not of an organic sound change of [ç] to [š], but of a substitution (he calls the [š]-sound an "Ersatzlaut"). Luick's cautious wording was probably prompted by the same fact which had led other scholars to the downright rejection of any possibility of the change of [ç] > [š] — viz. by the practically total absence of any other evidence for the change. (3) So much, then, for the traditional views voiced on the problem of origin of the NE form *she*.

II. In our opinion, the problems connected with the rise of the form *she* can be brought nearer to their solution by applying to them our above-mentioned theory, to the effect that slightly utilized phonemes tend to be discarded in the course of language development. The following paragraphs are intended to show that, seen in the light of this theory, Sarrazin's and Luick's views appear to be truer to facts than the views held by Morsbach and Bradley. Even Sarrazin and Luick, however, have not succeeded to penetrate to the very core of the problem.

First of all it should be observed that the rise of the EME [ç]-sound in *ʒhō/ʒhē*, admittedly going back to the earlier *hjo* < *hēō* < *hēq* (or *hje* < *hīē* < *hīq*, respectively), is in perfect agreement with what is known of the rise of the EME voiceless sonant sounds (4) [R, L, N, W], going back, in their turn, to the respective OE clusters *hr-*, *hl-*, *hn-*, and *hw-*: the same kind of progressive assimilation, with the subsequent loss of *h-*, was at play in the development of both *hj* and of all the other enumerated clusters. (5) The EME sound [ç] also shared with the EME sounds [R, L, N, W] the

status of a separate phoneme, marked by a very slight degree of functional utilization. The degree was even smaller in the case of the ζ -phoneme (or, better, J -phoneme) than in the cases of the phonemes R , L , N , and W : the only West Midland pair in which the difference of $[\zeta/j]$ (phonemically, J/j) was associated with the difference of meanings was EME $z^h\bar{\zeta} - z\bar{\zeta}$ 'she — you', whereas each of the other parallel phonemic differences, viz. R/r , L/l , N/n , and W/w , was responsible for analogous differences of meanings in a greater (though relatively also very small) number of word-pairs.

Another point deserves to be noted: the established phonetic and phonemic parallelism of J and R , L , N , W seems to be reflected also in the written norm of EME. The spelling zh for $[\zeta]$ is no doubt closely parallel to the spellings of the type rh , lh , nh , wh , commonly interpreted as graphical representations of the sounds $[R, L, N, W]$; the letter h in such digraphs was obviously a mere diacritical mark indicating the voiceless quality of the sound denoted by the letter preceding h . (6)

The phonemic parallelism established here between the EME J and the other voiceless sonant phonemes R , L , N , and W is suggestive of like parallelism of their ultimate fates. In the paper quoted in Note I it has been shown in detail how the slightly utilized EME phonemes R , L , N were soon discarded from the phonemic system of their period, and replaced by the voiced phonemes r , l , n standing closest to them in the system; to some extent, the phoneme W followed the same course of development. (7) Thus it is only natural that one expects the slightly utilized EME phoneme J to meet an analogous fate. In other words, one expects it to be soon discarded from the phonemic system of EME and to be replaced by its voiced counterpart j . The expectation appears to be justified by the spellings of zo , $z\bar{o}$, found in some EME writings of East Midland origin; Luick himself believes that these spellings may point to the presence of the voiced $[j-]$ sound (he does not, however, realize the phonemic importance of the supposed change of $[\zeta]$ to $[j]$).

The interesting point is that, although the voicing of $[\zeta]$ appears to have been an obvious kind of solution of the problem connected with the EME slightly utilized J -phoneme, it was by no means the only possible way leading out of the difficulties. As a matter of fact, the present-day forms of the word in English, whether in the literary standards or in the dialects, have all adopted solutions widely different from the simple voicing of $[\zeta]$. The most interesting kinds of solution will be analyzed below; that adopted by the East Midland dialects will be taken up first. This kind of solution, replacing J by ξ , is of special interest for us, because it has become typical of the Southern English Standard of the present day.

To do full justice to the East Mdl. solution, one has to realize that in the process of discarding the phoneme J , apart from voicing, another course was open, non-existent in the process of discarding the other voiceless sonant phonemes, R , L , and N . The peculiar course is due to the fact that in losing its voice, the sonant $[j]$ — unlike $[r, l, n]$ — acquires a distinctly fricative character, completely unknown to the voiced $[j]$ -sound (whose semivocalic character has more than once been commented upon) (8) and much more vaguely felt in the voiceless sonant sounds $[R, L, N]$ (9). In passing, it should be observed that a similar fricative character is also typical of the voiceless sonant $[W]$.

It was exactly this fricative character of $[\zeta]$ which provided the other

possibility of substitution when the process directed at the elimination of the *J*-phoneme had become imminent: the slightly utilized phoneme *J* could either be replaced by the corresponding voiced phoneme *j* or by a voiceless fricative phoneme resembling *J* rather closely from the acoustic view-point. There can be no doubt that in EME the only voiceless fricative substitute of the kind could be the phoneme *ʃ*, and thus the East Mdl. form *ʒhʒ* came to be replaced by *schʒ* [ʃe:]. It is worth pointing out that the dialects of north-eastern Scotland effected an analogous substitution of the *W*-phoneme by the voiceless spirant phoneme *f*, which was qualified for the substitution by its close acoustic similarity to *W*. — On the other hand, the EME voiceless sonant phonemes *R*, *L*, *N* had, in their time, no acoustically similar spirants standing close to them in the system, and so they could be replaced only by their corresponding voiced phonemic counterparts.

The decision as to which of the two possible substitutions would replace the slightly utilized *J*-phoneme was prompted by the needs of the EME language system; the needs, in their turn, were determined by one of the principal tasks of language, viz. that of being the instrument of mutual understanding among the members of the given language community. (10) Viewed in this light, the substitution of *J* by its voiced counterpart *j* would obviously have impaired the functioning of EME in one of its principal tasks: the choice of *j* as a substituting phoneme would have resulted in a formal coalescence of two important EME pronominal forms, *ʒhʒ* 'she' and *ʒʒ* 'you' (the respective OE sources of the words being *hēo/hīe* and *ʒē*). Thus the replacement of *J* by *j* was doomed to remain a mere theoretical possibility. — There was, naturally, another alternative: the two forms *ʒhʒ* and *ʒʒ* might have been differentiated by making use of the EME form *ʒhʒ̥*, which would have been clearly distinguished from *ʒʒ* even if its initial *J*-phoneme had been replaced by the voiced *j*. But the tendency to extend the ending *-ʒ* to the feminine pronoun appears to have been very strong in the East Mdl. area, and so the two forms *ʒhʒ* and *ʒʒ* could only be kept apart from each other by a difference in the initial consonant phonemes. No doubt, it was this fact that ultimately decided for *ʃ* as a substituting phoneme for the discarded *J*.

III. The penetration of *ʃ*-into the East Mdl. dialectal form *schʒ* was very closely connected with two interesting features characterizing the grammatical system of the dialects at that period. The first of the two was characteristic of the whole of ME, but especially of the dialects of East Midlands. It was the gradual loosening of the band tying up all the existing forms of the personal pronoun of the 3rd person with an identical phonemic beginning. The band had been in existence since the prehistoric period and is clearly revealed by the OE forms *hē* — *hēo* — *hit*, pl. *hīe/hī*. Apart from the phonemic differentiation of the masc. *h*- and the feminine *J*-, dating from EME and later made even more conspicuous by a further differentiation into *h*- : *ʃ*-, it is to be noted that in the course of the ME period there occurred two other changes which greatly contributed to the loosening of the band. First, the unstressed neuter form *it* was gradually becoming generalized in stressed positions, ousting the old form *hit*, the initial phoneme of which was identical with the initial phoneme found in other gender forms. Second — and this was even more important — the East Mdl. old plural form, going back to OE *hīe/hī* and by its initial phoneme still closely bound to the other gender

forms of the pronoun, was becoming completely ousted by the form *pei*, of Scandinavian origin.

Our theory of the important part played in the development of the forms of the EME pronoun *hē* by the phonemic differentiation of their beginnings is strikingly borne out by an interesting fact known from the historical dialectology of English. In their well known *Elementary Middle English Grammar* (Oxford 1923, § 375), J. Wright and E. M. Wright pointed out the ME feminine form of the 3rd pers. sg. *hō*, commonly found in West Mds. and in some parts of the south-western area (in the modern dialects the form is reflected by *u*, *ū*). How can the form be explained? The Wrights simply say that the element *j*, originally present in *hījō*, 'entirely disappeared'. It would be, however, very difficult, both phonetically and phonemically, to account for such process of disappearance. If otherwise in all EME clusters of the type 'h plus sonant sound' it was the first element that was invariably dropped (after having exercised some influence on its neighbour), why should the exactly opposite kind of change, the dropping of the second element, have occurred in the West Mdl. and south-western areas? It certainly appears more probable that the development of the cluster *hij* in the said areas conformed to the usual pattern of development typical of the *h*-clusters all over the English territory. (11) If this was so, then the West Mdl. dialects can hardly have preserved the form *hījō*, but rather they must have changed it into *çō* before the form *hō* came to emerge. Obviously, the form *hō* calls for an explanation different from the one supplied by the Wrights. Needless to say, the explanation to be given must fully conform to what we know of the general phonemic situation of the sound [ç] in EME.

In our opinion, the truly adequate explanation of the West Mdl. form *hō* may follow from the fact that from the purely phonetic point of view the initial sound of *zhō*, i. e. [ç], was perfectly equivalent to the third sound of words like *night*, *right*, pronounced [niçt, riçt]. (12) The functional value of this latter [ç]-sound was, naturally, quite different from that of the former: the [ç]-sound in *night*, *right* obviously had no independent phonemic status but was a combinatory variant of the phoneme *h/χ* known from words like *hē*, *taughte* (phonetically, [hæ:, tauçtə]). In the difficulties arising from the slight functional utilization of the phoneme *J* found in the words *zhō*/*zhē*, the purely accidental coincidence of the [ç]-sounds in *zhē* and *night* may have given impulse to a singular and highly original way leading out of the phonemic impasse.

The adopted solution consisted in the assignment of the lately arisen sound [ç] in *zhō*/*zhē*, on the grounds of its physiological and acoustic affinity to the older [ç] in *night* and *right*, to the old-established phoneme *h/χ*. By this assignment the [ç]-sound in *zhō*/*zhē* came to be evaluated as a positional variant of the *h/χ*-phoneme. There was only one weak spot in the adopted solution: the sound [ç] in *zhē*/*zhō*, if regarded as a variant of *h/χ*, was evidently misplaced, as the position it occupied in the two words had been reserved for another of the phoneme's variants, viz. for [h], which alone was authorized to stand initially before vowels. This anomaly was cancelled by replacing the sound [ç] in the two words by the positionally pertinent variant [h]. In our opinion, this is the only adequate explanation of the emergence of the West Mdl. fem. pronoun *hō* in EME (and there is hardly any doubt that

the feminine *hē*-form, also mentioned by the Wrights and found in the South Mdl. area and in the South in the period extending as late as the 15th century, should be accounted for quite analogously). It will have been noticed that the dialectal phonemic revaluation just outlined also managed to solve the given phonemic problem, viz. the dismissal of the slightly utilized *J*-phoneme, though by means entirely different from those employed in the East Mdl. area.

On the other hand it cannot be overlooked that the West Mdl. (or, respectively, South Mdl. and Southern) solution clearly presented a less radical, and therefore less satisfactory, way of dealing with the problem than the procedure adopted in East Mdl., where *J* was substituted by *š*. This criticism applies especially to the southern solution in which the admission of *hē* into the feminine gender totally effaced the distinction formerly found between the masc. and fem. forms of the pronoun. (Later on, the distinction was reintroduced — at least in the literary documents of the area — by the spreading of the form *schē*, which was forcing its way from the East Mdl. area). — Moreover, it should be observed that the West Mdl. (and also the South Mdl. and Southern) solution appears to have been rather deficient when tested by the general tendencies of the English phonemic development: in a sense, it may even be regarded as a retrograde step. One cannot close one's eyes, that is to say, to the fact that the solution amounted to the restoration of the otherwise receding *h*-phoneme in those forms in which it had already been eliminated by the rise of the *J*-phoneme. And yet, in the said dialectal areas this rather deficient phonemic solution was found preferable to the more radical solution of the East Mdl. type. How can the half-hearted attitude of the dialects of the said areas be accounted for?

In trying to supply an answer to this question one cannot fail to observe an interesting feature, common to all the three dialectal areas which refrained from the radical solution typical of East Midlands. The feature consisted in the continued firmness of the band uniting the forms of the personal pronoun of the 3rd pers. with an identical phonemic beginning. In our opinion, the dialects of the three areas were barred from accepting the more radical solution exactly on account of the fact that the band referred to had still been too strong in the areas. Naturally, the firmness of the band was not felt with equal intensity in all EME dialects. Its different degrees, ascertainable in different EME dialectal areas, are reflected especially by the conditions prevailing there in the plural form of the pronoun *hē*. The data supplied on this point by the Wrights (see Elem. ME. Gram., § 376) are most instructive. In East Mdl. the penetration of the form *pei* had started in the 12th century (Orm, writing very shortly after 1200, knew no other form), so that at the time when the solution of the phonemic problem of [ɣ] was becoming imminent the phonemic band tying up the pronominal forms had already been considerably loosened. The solution may have been effected as early as the middle of the 12th century (if one may trust the writing *scœ*, found several times in the Peterborough Chronicle and dating approximately from 1140). In opposition to this, the penetration of the form *pei* in West Mdl., in South Mdl., and in the South was definitely slower. Whereas in the East Mdl. dialects it had been generalized 'by the early part of the fourteenth century' (the Wrights, l. c.),

its generalization in the South Mds. was of a distinctly later date (to quote the Wrights again, it had 'become general . . . before the middle of the fourteenth century'), and in the West Mds. and in the South the process was slower still (according to the dating given by the Wrights, the form *pei* became universal in the West Mds. 'by the second half of the fourteenth century', and in the South, including Kent, 'during the fifteenth century.'). Thus it appears obvious that in the three last-mentioned dialectal areas the systems of the personal pronouns had not provided the conditions essential for the replacement of the phoneme *J* by *ʃ*, so that the only feasible solution was the more conservative replacement of *J* by *h*.

The validity of the above theory is borne out by the EME state of things typical of the Northern area. There the form *schō* was established very firmly: literary records present evidence for it since the close of the 13th century, so that in the popular dialects of the area it must have existed even earlier. And it is certainly no chance that in the Northern dialects the plural form *pei* had been common since the beginning of the ME period. Incidentally, one should notice the fact that in the Northern area the EME forms of the masculine and the feminine had been most effectively differentiated: they differ not only in the initial consonant phonemes, but also in the vowel phonemes following them (*hē* — *schō*). — The penetration of *ʃ* in the northern form *schō* was most probably furthered by sandhi cases of the type *beres hōʃ* (see H. Lindkvist: On the Origin and History of the English Pronoun *she*, *Anglia* 45, 1921, pp. 1 ff). Such cases, however, can hardly be regarded as solely responsible for the ultimate victory of *ʃ*- in Northern *schō* — the context of the change is too complicated to allow of an oversimplifying approach of the kind.

So much, then, can be said about the first of the two important points of the grammatical system that appear to be closely connected with the penetration of *ʃ* into the East Mdl. dialects, i. e. about the loosening of the phonemic band originally tying up the forms of the personal pronoun *hē*. (Incidentally, it should be noted that the said loosening represented only the first stage of a long process aimed at the cancellation in English of gender as a grammatical category; the process seems to have been completed in American English, see R. A. Hall, Jr: Sex Reference and Grammatical Gender in English, *American Speech* 26, 1951, pp. 170 n.)

The other of the two points is no less important. It concerns the OE demonstrative pronoun *seo*, regarded by many as the ultimate source of the NE personal pronoun *she*. From the phonological point of view, little can be said against the theory of the development leading from the OE *seo* to NE [ʃi:] (though Sarrazin, l. c., appears to have some doubts on this point). From the morphological standpoint, too, there can be hardly any objection to the possibility of explaining the form of a personal pronoun from what used to be a demonstrative pronominal form (see cases like OS cand. *peir* and OHG. *siu* which in the course of their developments became revaluated into personal pronouns, the NE *they* and NHG *sie*, respectively). Still, there can be no doubt that whenever this is reasonably possible, such kind of explanation of a personal pronominal form should be adopted as can refer the form again to the form of a personal pronoun, found in the earlier stage of the language in question. It is taken for granted, of course, that the explanation must be both feasible phonologically, and in full conformity with all the facts to be explained. Perhaps it is not too bold to assume that our explanation submitted above does not fall short of the requirements just stated.

On the other hand, there can be no doubt that the old demonstrative pronoun *sēo* did contribute, in a way, to the process of firmly establishing the form *schē* in EME; the contribution, however, was of a rather negative character. It is commonly known that the OE demonstrative pronoun *sēo*, and its masculine partner *sē*, were not to survive in ME: for the most part (13) their functions were taken over by the (then ultimately crystallizing) definite article *þe*, whose initial *þ-* was of course due to the analogical levelling exerted by other case forms. From this practically complete disappearance of the form *sēo* (14) it is sometimes concluded that the form *sēo*, and especially its developments *sjō* > *šō*, could be utilized for another purpose, viz. for expressing the feminine personal pronoun of the 3rd person. We believe, however, that the conclusion to be drawn from the premises is an entirely different one: as the form *sēo* (and its developments *sjō* > *šō*) had not survived in EME, there was nothing to prevent the substitution of *š* for *J* in EME. If, that is to say, the form *sēo* (or its developments *sjō* > *šō*) had been preserved there in its original status, the substitution of *š* for *J* would undoubtedly have not been effected for fear of homonymy that might have arisen between the demonstrative **schō* < *sēo* and the new personal *schō* < < *čō* < *hēo*. Thus it may be said that by its very disappearance the old demonstrative pronoun *sēo* had cleared the way for the definite establishment of the phoneme *š*- in the feminine personal pronoun.

IV. In this concluding chapter another important point should be emphasized. All that has been laid down in the preceding chapter amounts to the ascertainment of a thoroughly organic character of the substitution of *š* for *J* in the East Mdl. dialects. There was nothing fortuitous or purely mechanical in the substitution; on the contrary, the substitution was a natural consequence of a harmonious cooperation of the phonemic, phonetic, and morphological factors that had been at work in the said area in the EME period. The phonemic factor, primarily responsible for the change, was the very slight functional utilization of the EME phoneme *J*. This factor, however, only indicated the necessity of discarding the phoneme *J*: the manner of the elimination was abundantly co-determined by the other factors. The phonetic factor that contributed to the solution of the problem was the close physiological and acoustic similarity of the sounds [š] and [ç]. The morphological factor, in its turn, was the structural rearrangement of the system of English demonstrative pronouns: This rearrangement had made the way clear for the desired phonemic solution, and was well under way in the 12th century, having already resulted in the cancellation of the demonstrative *sē/sēo*, a potential homonym of the personal pronoun *schō/schē*. — Moreover, it should be noted that the rearrangement of the EME system of demonstrative pronouns also involved the ultimate crystallization of the definite article; this fact reveals that even some, though scanty, amount of influence of syntactical factors can be discovered in the process of substituting *š* for *J*. Last but not least, it will be found useful to recall the fact that to a certain degree the choice of the phoneme substituting for *J* was influenced by the effort to avoid a new pair of homonyms in the language (the words threatened by homonymy were *þe* and *šē*). If this was so, then the substituting process was not entirely uninfluenced even by the lexical plane of the language.

Our use of the term 'substitution' is thus obviously characterized by

consociations profoundly different from those attaching to K. Luick's use of the term 'Lautersatz'. In our usage, the term does not imply a mechanical replacement of one sound by another, on the ground of mere physiological and acoustic likeness or similarity. It rather refers to a change co-determined by the tendencies of development proper to practically all language levels: the phonetic, phonemic, morphological, syntactical, and (to some extent) even lexical. The problem of the substitution for *J* concerned all the enumerated levels, though not all of them with equal urgency, and the needs of all the levels (or, better perhaps, of all the sub-systems of the language) were remarkably harmonized in the solution ultimately adopted.

Our investigation has revealed, beyond all doubt, that even a narrowly delimited problem such as the phonological development of the NE form *she* cannot fail to reflect the striking co-ordination of all language levels as well as the delicate interplay of mutual influence exerted by all and any of the sub-systems included in the language system taken as a whole. But an ascertainment of this kind would contain only a part of the whole truth: one should not lose sight of the fact that behind the tendencies proper to each of the language levels (or, better, sub-systems) one common cause may be disclosed. The common cause is the need of a more and more efficient fulfilment by language of one of its basic tasks, i. e. to serve as a means of mutual understanding among the members of the given language community. This need is furthered both by the increasing differentiation of the means standing at the disposal of language (such as, in our case, the rearrangement of the system of demonstrative pronouns, the rise of the articles) and, occasionally at least, by the elimination of such means of language as are insufficiently utilized (such as, e. g., the EME phonemes *R*, *L*, *N*, *J*).

Incidentally, it should be realized that an impulse for the improved functioning of language in the above-said basic task may be sometimes due to factors of purely mechanical order, as are, e. g., those connected with the mechanism of the organs of speech. A careful examination of the process affecting the OE form *hēo* reveals that in some of its stages mechanical factors of the kind have indeed interfered. The contribution afforded by the mechanical factors will be evident from the following two paragraphs, briefly outlining the whole process.

The opening stage of the examined development, i. e. the shift of balance in the diphthong (*hēo* > *hēō*), was undoubtedly motivated by the needs of the syntactical level of the language, i. e. by the loss of sentence stress in less important sentence elements. The following stage of the process—which should not be overlooked—consisted in the generalization of the form *hēō* (or the form developed from it), which succeeded in completely ousting the older form *hēo* (or, again, its developments). Also this stage was clearly motivated intrinsically, i. e. by the need that the means of language should serve its basic task, referred to above, with the maximum reliability and unambiguity. This requirement could not be adequately fulfilled by the form *hēo*, which was to become monophthongized into *hō* as early as the close of the OE period, and in the course of the 12th century was bound to be delabialized into *hē*. Obviously the generalization of the form developing the OE *hēo* would have greatly impaired the functional reliability of the means standing at the disposal of the language in the EME period: the forms of the masculine and feminine genders of the pronoun *hē* would have fallen together and thus become indistinguishable. (15)

While the process of the generalization of *hēō* was taking place, two more changes occurred, viz, *hēō* > *hjo* > *çō*. Unlike the changes described in the preceding paragraph, the motive of the development just referred to was of purely mechanical order; the change was entirely due to the mechanical, physiological rules governing the activities of the organs of speech *quā* bodily organs. The result of the latter of the two changes, the form *çō*, was found to be inconsistent with the above-mentioned basic task of language: the sound[ç], phonemically evaluated as *J*, proved to be an uneconomic

element of the English phonemic system on account of the very slight degree of its utilization by the English language for functional purposes. It need not be stressed that we are faced here with a nice specimen of the type of situation theoretically formulated above: in this case, that is to say, the impulse for the improved functioning of language was due to a factor of purely mechanical order. The way in which the English language system coped with the difficult situation resulting from the impulse has been followed up by the present paper. It has been observed that the way out of the difficulties was found under due consideration of the needs of all the partial sub-systems of the language. (16)

In concluding, may the present writer be allowed to point out the fact that, in the analysis of this narrowly delimited but highly interesting problem of English phonology, the functional approach to the phonic facts of language has repeatedly demonstrated both its usefulness and its working capacity.

NOTES

* For technical reasons, the voiceless sonant sounds and phonemes will be transcribed here throughout by capital letters (i. e. [R, L, N, W] or *R, L, N, W*, respectively); the only exception to the practice is the use of the traditional symbol [ç] for the "ich-Laut", whereas the symbol *J* is reserved for the corresponding voiceless phoneme. — The English *sh-* and *zh-* sounds (and phonemes) are written throughout as [š, ž] (or *š, ž*, as the case may be).

¹ J. Vachek: *Foném h/χ ve vývoji angličtiny* (The Phoneme *h/χ* in the Development of English), *Sborník prací filosof. fakulty brněnské university I-A*, 1952, pp. 121—135; a brief summary in English on p. 135.

² The scribes of the period display a rich variety of spellings, among the most common being *sho, zeo, hyo, ze, ge, ghe, ghye* etc.

³ Two proper names are sometimes believed to furnish such evidence. They are the geographical names *Shetland* (Islands) and *Shapinsha* (an island in the Orkney group), which correspond to the Scandinavian forms *Hjaltland* and *Hjaltlandisoy*, respectively (see Sarrazin, l. c.). But in these words we have to do, most probably, with the phenomenon of substitution for an unusual phonemic fact found in a foreign word, not with a sound change in the proper sense of the word. — A. H. Smith in his paper "Some Place-names and the Etymology of 'She'" (*RESt I*, 1925, pp. 437—441) quotes three additional Northern English place-names, *Shap, Shaun Rigg, and Shipton*, in which *Sh-* also appears to go back to *hǰē > hēa-* or *hēo-*. In these cases the shift of balance in the diphthong (such as *hēa > hēā*), essential for the rise of the cluster *hǰ-* — and also for its subsequent change into *ç*, to be finally substituted for by *š* —, may have been due to Scandinavian influence. Thus the *Sh-* forms of these place-names may represent original Scandinavian variants of domestic *H-* forms; one would have to do here again with phenomena of substitution rather than with real sound changes. (On the general aspect of the problem of foreign influence, see Note 16 below; here the present writer wants to note his acknowledgement to Prof. L. Zatočil and Dr J. Fírbas, the discussion with whom have considerably helped him to clear the problem.) A. H. Smith also maintains the view that ME *schō/schē* should be traced back to EME *hēo*, but fails to envisage the problem in all its complexity.

⁴ By the term "sonant sounds" we mean those consonants which resemble the vowels most closely both in their acoustic qualities and in their ability to form the nucleus of a syllable; the term thus comprises the liquids, the nasals, and the consonantal *i* and *y* (see also J. Marouzeau, *Lexique de la terminologie linguistique*, Paris 1943, s. v. *Sonante*, par. 2).

⁵ It should also be noted that the cluster [hj], known from NE words like *huge, human* etc., was to not emerge in English before the middle of the 16th century. Thus the EME cluster *hǰ*, finding no support in the phonemic system of its period, had only one course open — that of being changed into [ç]. Some aspects of the phonemic problem of [hj] in Present Day English will be dealt with in another paper (see Note 7 below).

⁶ Needless to say, we are not losing sight of the fact that, following the pattern set by French, the EME letter *h* indicated not only voicelessness but also other modifications of the sound denoted by the preceding letter (see, e. g., the digraphs *ch, th*,

and also *gh* which was spreading at the expense of older, more consistent *zh*. But it is certainly worth noting that after the letters meaning the sonant sounds the use of the letter *h* appears to be invariably associated with the indication of voicelessness. It is therefore highly probable that in the digraph *zh* where *z* stood for [j], the function of the letter *h* is to be interpreted analogously. Consequently Luick's suggestion that the symbol *z* also stands for the "palatal χ " does not seem particularly convincing.

⁷ A closer analysis of the problems connected with the EME *W*-phoneme and its further development is presented in our paper "On the Phonetic and Phonemic Problems of the Southern English WH-Sounds" (to appear in the *Zeitschrift für Phonetik u. allg. Sprachw.*, vol. 8).

⁸ Thus, e. g., D. Jones (*An Outline of Engl. Phon.*, Leipzig 1932, § 818) contrasts the English semivowel [j] to the German [j], which is a distinctly fricative sound. — The semivocalic character of English [j] is in no way contradicted by the ENE assibilation phenomena of the types [tj > tʃ, dj > dʒ] (in words like *nature*, *verdure*). It will be easily understood that in articulating [j] immediately after the sounds [t, d] the tongue, following the principle of economy of articulation, takes up the position closer to the alveoli than in the absolute beginning of a word. In this manner, the sound [j] acquires more of the fricative character than is usually the case, and is therefore more susceptible of being assibilated.

⁹ It should be understood that we are speaking here not of the fricative [r]-sound, common in the present-day English standard, but of the "trilled [r]", which appears to have been common, in prevocalic positions at least, both in OE and in ME. Here we follow the opinions of H. Sweet (*A History of English Sounds* from the earliest period, Oxford 1888, § 506-7), H. C. Wyld (*A Short History of English*, London 1937, p. 34), and K. Bülbring (*Altenglisches Elementarbuch I*, Heidelberg 1902, p. 185). On the other hand, K. Brunner (*Altenglische Grammatik*, Halle 1942, p. 149) believes that the OE *r* was a cerebral sound. The theory, evidently based on the phenomena of "breaking", can be true at most of the sound *r* in a set of preconsonantal positions, certainly not of the prevocalic *r* in the absolute beginning of a word. (The real character of the phenomena of "breaking" is, naturally, too complicated to be dealt with in this connection.) Finally, it is worth pointing out that K. Luick (HG § 143) explains the facts of "breaking" without assuming the cerebral articulation of the OE *r*-sound. He only supposes that the back part of the tongue blade was somewhat raised, possibly to the accompaniment of labialization. — Needless to say, the phonetic character of ENE *r* is a separate problem the solution of which is not necessarily dependent on the answer to the question of the phonetic character of OE *r*.

¹⁰ Cf. J. V. Stalin, *Concerning Marxism in Linguistics* (Soviet Literature 1950, Nr. 9, pp. 5—24). The close connection existing between this basic task of the language and the elimination of the slightly utilized phonemes was discussed in some detail in the paper quoted in Note 1.

¹¹ K. Luick, too, is of the opinion that in southern and western EME *hþ* the first component of the diphthong *gō* was dropped ("wurde abgeworfen"); he puts this loss of *g* on one level with cases like OE *seowan* > EME *sqwen*, OE *ceōsan* > EME *chōsen* etc. There was, however, a profound difference between the group *hj* which had arisen in *heō*, and the groups *sj*, *k'j*, which had emerged in *seōwian*, *ceōsan*. In the groups *sj*, *k'j* — whatever the phonetic value of *k'* may have been in OE — the former of the two component sounds was physiologically and acoustically more conspicuous than the latter: thus the mutual influence of the two components resulted in the absorption of the latter by the former, which, naturally, may have somewhat modified the pronunciation of the absorbing sound (if any modification of the kind was feasible, see below). In this way the group *sj* passed into a palatalized sound *s'*, which would have necessarily acquired the status of a separate but very slightly utilized phoneme, and therefore was promptly substituted by *s*. — The case of the group *k'j* was somewhat different: its former component had been palatal before, and thus it could not have been affected by the palatalizing influence of the latter element *j*. Still, one could hardly say that the element *j* "was dropped" in that group — rather it was absorbed by *k'*. (Incidentally, changes of the type *zēoc* > *yok*, *zēara* > *yēre* could be commented analogously). — On the other hand, the group *hj* was of a profoundly different character, as the physiologically and acoustically more conspicuous of its elements proved to be the latter of the two, i. e. *j*: it is commonly known that in pronouncing the NE sound [h], the sup-erglottal organs (esp. the tongue and the lips) simply anticipate the positions to be taken by them in the articulation of the following vowel (cf. E. Krüsinga, *A Handbook of Present Day English I*, Utrecht 1919, p. 32). Undoubtedly, the OE and EME

initial sound *h* must have had like character before vowels, and certainly also before the semivocalic *j*. This articulatory dependence of *h* on the following vowel (or semi-vowel) shows unmistakably that in the group *hj* the mutual influence of its two component elements must have resulted in the absorption of the former by the latter: the position of the articulatory organs typical of *j* was preserved but owing to the influence of *h* the absorbing sound lost its voice, and thus the outcome of the process was [ç]. — To sum up, the supposed change of *hēō* > *hō* cannot be justified by changes of the type *egorian* > *sowen*, *cgōsan* > *chōsen*; the form *hō* must be accounted for differently, with due consideration of both the phonetic and the phonemic issues involved. An attempt at an explanation of the type has been presented in the above lines.

¹² Incidentally, this phonetic equivalence may have lain at the bottom of the scribal practice that extended the use of the digraph *zh* so as to cover words like *nizht*, *rizht*. The digraph had originally denoted the velar fricative sound *χ* (as in *kuuzhte*) and also the initial voiceless *j*-sound in *zhē* (see above, Note 6). The extension was made more feasible by the fact of the variant relation, then clearly existing between the sounds *χ* and *ç*, both of which had belonged to one and the same phoneme since the OE, and even earlier, periods (see the paper quoted in Note 1).

¹³ Some of the functions, however, came to be taken over by the new demonstrative pronoun *that*, which was built up on the basis of the original neuter form of the OE pronoun *sē*.

¹⁴ On the process of this disappearance, see interesting comment by H. C. Wyld (A Short History of English³, London 1937, p. 222f.). It reveals that the old feminine demonstrative form *sēo* had become completely extinct in the East Mdl. records by the middle of the 12th century. From about the same period dates the first available evidence for the East Mdl. form *schē* (written *scē*) in the Peterborough Chronicle. Though the evidence is not accepted by some scholars, it is very difficult to find any other explanation for the spelling, reoccurring five times in the text (Sarrazin, l. c., tries to do so, but with very little success).

¹⁵ The validity of our above thesis is borne out by the fact that in the 14th century some West Mdl. areas presented our pronoun under the form *hō* (written *hwe*, see the Wrights, l. c.). This form was a regular development of OE *hēo*, which apparently had not been ousted by *hēō* in those areas, as has happened in East Midlands. In our opinion, the absence of the ousting process can only be explained by the fact that in the concerned areas no danger of homonymy of the masculine and feminine forms of the pronoun was imminent (and was not to become so for some time to come). The absence of the danger, again, was due to the fact that in those areas *ō* was to keep its labialized character up to the end of the 14th century (in some places even to a later date, see the Wrights, l. c. § 65, K. Luick, HG § 357).

¹⁶ It has been suggested by some scholars that the penetration of the EME form *schē* may have been due, at least in part, to the influence of the Scandinavian form *sjá*. The sceptical attitude of most scholars towards this possibility appears fully justified (see Sarrazin, l. c., Luick, l. c.). Rather, one might admit some participation of Scandinavian influence in bringing about the shift of balance in the diphthongs *ea*, *eo* > *ēa*, *ēō* (see above, Note 3); it will be remembered that the shift was an essential condition for the rise of the cluster *hj*- in the pronominal form). But even if the operation of the foreign factor were to be admitted to have played some part in the process, its influence could have asserted itself only in so far as it was in agreement with the needs of the English language system as a whole. (On the absorption of foreign elements into the grammatical system of language see V. N. Yartseva's important paper "O vnutrennikh zakonakh razvitiya yazyka v svete trudov I. V. Stalina po yazykoznaniiyu" (On the inner laws of the development of language seen in the light of J. V. Stalin's works on linguistics), Izvestiya Akad. Nauk SSSR, Otd. lit. i yaz. 11, 1952, pp. 193—205. Yartseva urges that only such foreign elements are admitted into the grammatical structure of language, as are not contradictory to its structure. In our opinion, the thesis applies to the phonic aspect of language with equal validity.

ПРИМЕЧАНИЯ К ФОНЕТИЧЕСКОМУ РАЗВИТИЮ НОВОАНГЛИЙСКОГО SHE

Старую проблему возникновения новоанглийской женской местоименной формы *she* можно по-новому осветить, применяя к ней тот факт, что в языках наблюдается более или менее сильная склонность, направленная на ликвида-

рию недостаточно использованных фонем (см. выводы автора в настоящем Сборнике I-A, 1952, стр. 121—135, русское резюме на стр. 135). Такой недостаточно использованной фонемой и было ранее среднеанглийское глухое *J* со звуковой значимостью [ç], возникшее в среднеанглийском языке вследствие прогрессивной ассимиляции в формах *hjo* (из древнеанглийского *hēo*) и *hje* (с аналогичным *-ē* по мужскому роду), обозначаемое в грамматиках в виде *zhē*, *zhē*. Это *J* в некоторых среднеангл. текстах субституировалось соответственной звонкой фонемой *j* (оттуда частая среднеангл. графика *jo*, *je*). Среднеангл. диалекты и современная литературная норма, однако, решили проблему ликвидации *J* сплошь другим путем.

В говорах восточного центра (породивших литературную норму) произошла субституция *J* фонемой *š*. Речь шла, конечно, не о простой механической субституции на основе фонетического родства [ç] и [š]; выбору фонемы *š* в качестве субститута в значительной мере содействовали и факторы морфологические, синтаксические, даже лексические. В области морфологии это было отрешение от узов, до того связывавших формы личного местоимения 3-го лица согласуемым фонематическим началом (ср. древнеангл. *hē*—*hēo*—*hit*, pl. *hie*/*hi*). Отрешение совершилось частью в результате обобщения неудараемого *it* в ударяемых положениях, частью — притом главным образом — в результате распространения скандинавской формы *pei* в Им. пад. мн. ч. местоименной флексии. На основании диалектного материала автор доказывает прямую связь быстрого распространения формы *pei* с прониканием *š*- в форме личного местоимения жен. рода.

Важную роль сыграла при субституции также перестройка системы указательных местоимений, главным образом выход из употребления форм *se*, *sēo*, которые не являлись, правда, непосредственным источником среднеангл. *schē*, но именно благодаря своему исчезновению облегчили привитие *š*- в форме *zhē* (фонематически *Jē*). После этого выхода из употребления, следовательно, личное местоимение *schē* не подвергалось опасности омонимического совпадения с указательным *schē/schē*, в которое, вероятно, перешло бы древнее *sē/sēo*. Ввиду того, что вытеснение форм *sē/sēo* стояло в тесной связи с окончательным оформлением определенного члена *þē*, ясно, что в субституционном процессе, в известной мере, принимали участие также синтаксические факторы.

Стоит внимания, что возможность субституции глухого *J* звонким *j* оказалась практически вовсе не использованной языком — видимому по той причине, что она повлекла бы за собой омонимию среднеангл. форм *zhē* — *zē* (новоангл. „*she*” — „*you*”). Выходит, даже область лексики, очевидно, оказала свое влияние, хотя и весьма отдаленное, на субституцию *J* — *š*.

Автор рассматривает тоже способы, которыми данную фонематическую проблему решили другие среднеангл. говоры, и в заключении подытоживает, что развитие новоангл. местоимения *she* происходило таким образом, чтобы были удовлетворены потребности всех составных систем языка (звуковой, морфопрепинания и необычных для данного места предложения, а иногда и при пологической, синтаксической и лексической), тенденции которых образовали тут замечательную взаимную гармонию. Он тоже, однако, отмечает, что в основе тенденции всех этих составных систем лежит одна общая причина: необходимость всё более действенного выполнения языком его основного назначения, т. е. служения средством общения данной языковой общности. Такой потребности служит постепенная дифференция языковых средств (напр. в англ. перестройка системы указательных местоимений, возникновение членов), а, с другой стороны, ликвидация недостаточно использованных языковых средств (напр., в частности, англ. фонемы *J*). Наконец, автор явствует, что толчок к лучшему исполнению названного основного назначения языка может быть вызван иногда фактом чисто механического характера, обусловленным напр. механизмом речевого аппарата. Таким образом зародилась именно фонема *J* (в результате механических изменений *hēo* > *hjo* > *c*), с наличием которой языку пришлось справиться. Настоящая статья и пыталась показать, каким путём осуществилось разрешение сложившегося нового положения в соответствии с тенденциями развития и с требованиями всех составных языковых систем.

