

$\begin{array}{c} \dot{\underline{t}} \quad \times \quad \dot{\underline{t}} \quad \times \\ \text{tempel} / \text{hwælvet} \\ \dot{\underline{t}} \quad \times \quad \dot{\underline{t}} \quad \times \\ \text{trodsær} / \text{hwælved} \end{array}$

there is no vowel between the first and the last *n* in *grunnen* and *funnen* as the verse is recited by a man speaking the riksmål of the East. The words are nevertheless dissyllabic.

A phonetician would perhaps object that the feeling of having dissyllabic or trisyllabic words in *grunnn* and *bønnne* is an illusion, and that there is in reality only a long nasal to be heard in these words as I pronounce them. But the objection is not valid. We have distinctions between long and short nasals in Norwegian quite different from these cases. There is a distinction between long and short *n* combined with the distinction between short and long vowels as in *hūn* "a slab (of timber)" and *hūnn* "she" (written *hun*). But the nasals in question are part of quite another series of distinctions.

Let us consider the following examples:

funn "a find",
funnen "found",
funne perf. pt. pl. of the preceding word,
funne "they found", now obsolete pl. of the preterite of the verb *finne* "to find",
funnene "the finds", pl. of the noun with the definite article.

In the first two cases there is no vowel between the first and the last of the *n*'s, but still the words are different. And in the last three words there is no vowel between the first and the last *n*. The difference between the words is found in the *n*. The first word is pronounced with an ordinary geminated *n* between an accented vowel and an unaccented one, the second is pronounced *fuñnə* with the first part of the geminate long. The last word is a trisyllabic *funnnə*.

It might perhaps be objected that the difference in these words is due to the different tone which is found in some of them. *funn* has the tone called simple and *funnen* the tone called double or compound. But the first and the second *funne* have the same tone and still they are distinctly different. In fact there are cases where words with geminates and triplicates have exactly the same tone. Take the following articulations: *b + u + n + ə*. These articulations may represent three different words with three different meanings in spite of the fact that they all have the double tone.

bu`nnə (written *bunne*) is a verb meaning "to have its origin in, to be founded on".

bu`ñnə is the pl. of the perf. pt. of the verb "to bind" and is written *bundne*.

bu`nnnə is the pl. with the definite article of the word *bunn* "bottom".

In the monosyllabic neuter nouns ending in a long *n* (written *-nn* or *-nd*) the difference between an ordinary geminated *n* and a triplicate serves to distinguish the singular of the noun with the affixed definite article from the plural with the same article, both

forms having the simple tone, e.g. *binne* (written *bindet*) "the bandage": *binnnə* (written *bindene*); *bånnə* (*båndet*) "the ribbon": *bånnnə* (*båndene*); *dønnə* (*dønnet*) "the boom": *dønnnə* (*dønnene*); *funne* (*funnet*) "the find": *funnnə* (*funnene*); *punnə* (*pundet*) "the pound": *punnnə* (*pundene*); *sinnə* (*sinnet*) "the mind": *sinnnə* (*sinnene*); *sunnə* (*sundet*) "the sound": *sunnnə* (*sundene*), etc.

In the Gaelic spoken in Barra in the Hebrides which has just been described by a young Norwegian linguist, Mr BORGSTRØM (in *N.T.S.*, VIII, 71 sqq.), the division of syllables is free and potentially significant when nasals and liquids stand after a short vowel before another vowel. There is a difference between such words as *ʃæ-rak* a verb meaning "to fade" (*searg*) and *ʃæR-ak* "a glass of whisky". Mr BORGSTRØM has found no example in which the syllabic division by itself serves to distinguish two words. In the words quoted above there is also a difference in the *r*'s. But that a difference really does exist is distinctly felt by the speakers. One of Mr BORGSTRØM's sources declared that the two words *fæNak* "a crow" (*feannag*) and *ʃaLak* "hunting" (*sealg*) are very different in structure. In the first word, he said, there is a "space" between the two syllables. He could pronounce *fæN-ak*. But in the second *ʃa-Lak* the *L* and the *k* are so "close together" that a separation between them as in *fæN-ak* is impossible. The word is "nearly monosyllabic, but not quite monosyllabic", he said.

It may be seen from these examples that in some cases and in some languages syllable divisions may be significant.

7. Dr J. VACHEK (Prague): *One aspect of the phoneme theory.*

Since the First International Congress of Phonetic Sciences in Amsterdam in 1932 some of the fundamental notions of phonology, especially those established by the Prague group of scholars, have been submitted to criticism, and phonologists have, as a rule, profited by it. During these years, especially, scholars of the English-speaking countries have contributed to the general phonological discussion. I mean especially the work done in England by Prof. J. R. FIRTH, and by Prof. W. F. TWADDELL in the United States of America. Both scholars may be said to follow, in some way, the traditions established in their respective countries by Prof. D. JONES and Prof. EDWARD SAPIR. I use the cautious phrase "in some way": what I mean is that there is a considerable resemblance between the efforts of Prof. FIRTH and Prof. TWADDELL on the one hand and those of the two esteemed pioneers of phonology on the other hand in so far that the former two scholars arrive, just as Prof. JONES and Prof. SAPIR did before them, by their own methods, at results which at first sight appear very different from those arrived at by the Prague scholars, but which, in the long run, appear to have much more in common with them than might be expected.

As limits of time do not permit of a discussion of both these aspects of the phoneme theory, I must confine myself to one of them only. It is due to technical reasons only that I failed to choose the theory

of Prof. FIRTH for my theme; an exposition of his starting-point would take much more time than in the case of Prof. TWADDELL. I propose, therefore, to deal with the main theses of the American scholar.

Prof. TWADDELL's comprehensive treatise¹ gives evidence of the penetrative insight of its author and of the keen realization of the problems involved. Unfortunately, the highly abstract style is apt to deter a number of readers.

Prof. TWADDELL subjects the existing definitions of the phoneme to his criticism. All previous definitions, he says, have agreed in describing it as a reality of some sort. One group of scholars defined the phoneme as a mental reality, another group as a physical one. The author rejects, justly I think, both categories of definitions. According to the mentalistic (i.e. psychologistic) definitions, phonemes should be considered as phonic images (*Lautvorstellungen*, images acoustico-motrices). But such units, as Prof. TWADDELL justly urges, are inaccessible to linguistic study. Phonemes should be defined by *linguistic* terms. And this is exactly what the scholars of the other group try to accomplish by defining phonemes as physical realities. This, again, may be done in two ways. Considering that any phoneme may be manifested in two or more sounds, two subalternatives are possible: a phoneme is equal either to a sound feature present in, and therefore common to, all such sounds, or simply to the sum of such sounds. The first subalternative is rejected by Prof. TWADDELL as undemonstrable by experimental means.² According to the second subalternative, a phoneme is a family of sounds in a given language, which are related in character and are such that no one of them ever occurs in the same surroundings as any other in words. In determining phonemes, therefore, it is necessary, as Prof. TWADDELL puts it, to establish a hiatus of organogenetic similarity which sets off all members of one such family of sounds from the members of all other such families. And this is the very point where Prof. TWADDELL finds this second subalternative objectionable: he urges that the establishing of such hiatuses is sometimes very difficult, and even arbitrary.

We cannot enter into the details of this criticism here; it is Prof. TWADDELL's own definition which concerns us in the first place. The term "phoneme", he says, has proved eminently useful to linguistic study, and therefore should be defined properly. But the attempts to define it as a reality of some sort have not been successful. Maybe, he thinks, it is even unnecessary to associate the term with any reality. Let us quote the author's own words: "The purposes to which the term may be put in our discipline are served equally well or better by regarding the phoneme as an abstractional, fictitious unit" (p. 33).

¹ W. FREEMAN TWADDELL, *On defining the phoneme* (*Language Monographs*, no. XVI), Baltimore, 1935.

² An interesting discussion of this point may now be found in M. J. ANDRADE's paper "Some Questions of Fact and Policy concerning Phonemes" (*Language*, XII, pp. 1 ff.).

A straightforward and radical declaration like this may seem surprising; but an examination of some details of Prof. TWADDELL's exposition reveals the fact that his views are by no means so contrary to the phonematic theories hitherto formulated as might be thought. Let us proceed to that examination.

Of utmost importance is Prof. TWADDELL's distinction between *utterances* and *forms*: "If I say: 'That's a fine lamp', 'Won't you light the lamp?' 'Where's your old lamp?' each of these acts of speech constitutes an utterance. . . . As a student of language I abstract from utterance-events certain fractions which I assume to be substantially recurrent, and (in the example above) I call that abstraction the form *lamp*. The utterance occurs, it is speech, 'parole'; the form exists, so to say, it is a part of a language, 'langue'." Thus says Prof. TWADDELL (p. 40). Let us add that in the next lines he emphasizes the distinction between forms and utterance-events by stating his use of the word "phonetic" for characterizing relations of utterance-events, and of "phonological" for characterizing relations of forms.

A double inference may be deduced from the above distinction. Firstly, that what Prof. TWADDELL calls "abstractional, fictitious" should by no means be identified with "unreal, non-existent", as the meanings of those words are often understood. Prof. TWADDELL emphasizes the distinction *langue*: *parole*; the former is an abstraction, it is true, but it possesses some existence (Prof. TWADDELL himself says: "the utterance occurs, the form exists"), and the same, as we shall see, is the case with the phoneme. The other inference is based on Prof. TWADDELL's use of the terms "phonological" and "phonetic" for the respective spheres of *langue* and *parole*. This use is of fundamental importance. Phonologists of the Prague group will certainly agree with this terminological distribution, as established by Prof. TWADDELL. It is fairly well known that the distinction between *langue* and *parole* has always belonged to the store of their linguistic ideas and methods and that they have several times been taken to task for it. The idea that phoneme is a fact of *langue* which becomes manifested in *parole* by means of a number of sounds is, even if not explicitly stated, implicitly present in most of their works. May I be allowed to quote a few lines of my own dating from 1932 (*Charisteria Gu. Mathesio oblata*, Prague, 1932, p. 33): "It appears that the qualification of phoneme by the term of symbolically utilizable counter, complies best with modern considerations of the substance and purpose of language which date from F. DE SAUSSURE's qualification of linguistics as a 'science sémiologique'. The counters, however, become manifested in actual speech only. . . . Thus a phoneme may be defined as a symbolically utilizable counter which becomes manifested in actual speech by means of (two or more) sounds which, etc., etc." In the following year (1933) Prof. A. ARTYMOVYČ delivered a lecture in the Prague Linguistic Circle in which he expressly denoted phonemes as facts of *langue* and sounds as facts of *parole*. To sum up, the second inference mentioned above is that there appears to be a concordance between Prof. TWADDELL

and the Prague school in so far as their starting-points may be denoted as similar, if not identical.

It should be mentioned, by the way, that Prof. TWADDELL rather unjustly enclosed functionalistic definitions of the phoneme in that chapter of his book which deals with psychologicistic definitions. In functionalistic definitions, he says (p. 15), utilization of phonemes in distinguishing words and sentences is usually, "either explicitly or by implication, related to the intention of the speaker". As a proof of this, one quotation from my own paper and three from those of Prof. V. MATHESIUS are adduced, but I am absolutely unable to find the slightest allusion in them, be it implicit or explicit, to the intention of the speaker.¹ At the end of the chapter mentioned (p. 16), Prof. TWADDELL quotes the definition of the phoneme comprised in the "Projet de terminologie phonologique standardisée" (*Travaux du Cercle linguistique de Prague*, IV, 311) with the following remark: "The Cercle linguistique de Prague, which in 1929 defined phonemes as 'images acoustico-motrices', in 1931 shifts the emphasis to a functional characterization." But a careful examination of the *Projet* reveals clearly the fact that the change did not consist in shifting emphasis from one part of the theory to another, but in the complete elimination of the last remnants of psychologicistic terminology.

Let us take up again the distinction *langue: parole*. *Langue*, of course, can be studied only through the medium of *parole*, i.e. as it is manifested in actual speech utterances. Such must necessarily be also Prof. TWADDELL's procedure. As he says, "we observe the utterance-fractions which correspond to a form; we study the abstracted form which corresponds to utterance-fractions" (p. 40).

As to the utterance-events, they are always phonetically different (for no two events can be exactly alike). But some of the utterance-events may be phonetically significantly alike, that is if they evoke similar responses in similar social situations (more roughly: if their "meanings" appear to be the same). To such utterance-events correspond what Prof. TWADDELL calls "phonologically alike forms". One literal quotation will make Prof. TWADDELL's attitude still clearer: "The form is all that is similar and nothing that is different in the various events; thus only significant differences are phonologically relevant" (p. 41). It should be noted that this statement again reveals the so far absolute parallelism of attitudes between Prof. TWADDELL and the Prague school: the leading idea of the latter has always been that of distinguishing significantly (or, functionally) relevant phonic facts from the irrelevant ones.

To return to Prof. TWADDELL's theory: forms that are not phono-

¹ Quotations in question are as follows: "Thus J. VACHEK in *What is Phonology?* refers to the phoneme as 'a functional unit' and later states: 'The immense, practically unlimited number of sounds and sound variations in every language appears to be a manifestation (or, perhaps, realization) of a definite and strictly limited number of phonemes'. VILÉM MATHESIUS defines phonemes as 'Laute, die in dem analysierten System funktionelle Geltung haben'; as 'sounds endowed with functional values'; and as 'des éléments phonologiques fondamentaux appelés phonèmes, c.-à.-d. des sons... qui ont une valeur fonctionnelle'."

logically alike are phonologically different. Pairs of phonologically different forms, however, may exhibit various grades of differences. And in any language groups of forms (or, as Prof. TWADDELL calls them, classes of forms) may be ascertained which are minimally phonologically different, such as American English *beet: bit: bait: bet: bat*. Terms of such minimum differences in such classes of forms are called by Prof. TWADDELL *micro-phonemes*. It should, however, be borne in mind that, according to Prof. TWADDELL, terms of these differences are micro-phonemes only *qua* terms of such differences, and only *qua* terms of differences of the single class concerned. Thus e.g. *i* of the form *beet* is, as Prof. TWADDELL says, not a micro-phoneme *per se*, but only in comparison with *i* of the form *bit*, with *ē* of the form *bait*, etc., and, in addition to this, only in so far as we keep within the limits of the class *beet: bit: bait: bet: bat*. For other classes of forms, other micro-phonemes must be established. Thus, e.g., for the class *seat: sit: sate: set: sat*. The terms of *this* class, however, should be regarded as similarly ordered in comparison with the terms of the b-t-class discussed above.

Let us consider the following classes of forms:

<i>pill</i>	<i>nab</i>
<i>till</i>	<i>gnat</i>
<i>kill</i>	<i>knack</i>
<i>bill</i>	<i>nab</i>

These classes again are similarly ordered (the respective micro-phonemes are printed in italics), because, as Prof. TWADDELL puts it, "the phonological differences among the forms of the two classes correspond to a constantly recurring articulatory set of differences among the phonetic events, and those articulatory differences are similar and one-to-one. . . ." (p. 47). Then Prof. TWADDELL proceeds to a higher synthesis and defines the sum of similarly ordered terms of similar minimum phonological differences among forms (i.e. the sum of the respective micro-phonemes) as a *macro-phoneme*. To give an example: a macro-phoneme *p* in American English comprises all micro-phonemes *p* from such classes as the two schematized above and from a great many other classes, such as *tapper: tatter: tacker: tabber, pair: tear: care: bear*, etc., etc. What Prof. TWADDELL particularly emphasizes is again the *relational* character of macro-phonemes, if we may call it so. The macro-phoneme *p*, for example, is for him "the sum of all those phonological differentiae which correspond to a labial articulation as opposed to alveolar or palato-velar, a voiceless articulation as opposed to voiced, a stop articulation as opposed to fricative".

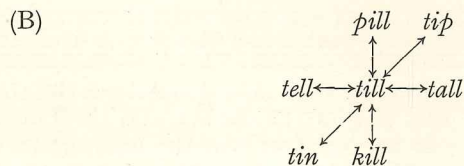
If we have up to the present more than once pointed out the congruence between the attitudes of Prof. TWADDELL and the Prague phonologists, now we have to face the fact that the final results of their procedures are rather different. It may have become clear from the above comments that the difference between the macro-phoneme, as defined by Prof. TWADDELL, and the phoneme of the Prague group is not reducible to an opposition, "an abstractional

fiction: a reality of some sort". Both the macro-phoneme and the "Prague phoneme", that is to say, are of like character in this respect—either both of them are abstractional fictions or both of them possess some reality, such at least as may be attributed to abstractions. The real difference between the two conceptions must be stated in this way: the macro-phoneme is a relational unit, the phoneme of the Prague group is, to use Prof. TWADDELL's term, a constituent element of forms. Which of the two conceptions conforms better with facts?

To find an answer to this question, the character of units established by Prof. TWADDELL must be discussed at some length. Criticism of such purely relational units might begin by stating that a relation cannot be imagined where there is nothing to relate, i.e. that even Prof. TWADDELL's way of defining phonemes postulates units which are constituents of forms. But, in order to be just to the procedure developed by Prof. TWADDELL, we shall begin with the micro-phonemes as he did. Prof. TWADDELL states that the units he calls micro-phonemes are not to be considered as micro-phonemes *per se* (i.e. that they, too, are no constituents of forms), but only *qua* terms of minimum phonological differences, and only *qua* terms of differences within a single class of forms. Let us admit this for a moment. The point is, what kind of conclusions may be drawn from such a definition? Prof. TWADDELL's inferences do not appear convincing. His establishing of classes of forms which are minimally phonologically different suggests an idea that in a form like *till*, *t* is a micro-phoneme so long as the form is opposed to forms like *pill*, *kill*, *bill*. If, however, the form *till* is opposed to members of another class, say to forms *tell*, *tall*, *tool*, *t* is no longer a micro-phoneme, and it is *i* which is entrusted with that function; it is deprived of it, however, as soon as the form *till* becomes opposed to forms of a class *tin*, *tip*, *tick*, when the micro-phonemic function is allotted to *i*. If this were so, *langue* would have to be considered as a sum of classes of forms, such as

(A)	<i>pill</i>	<i>tell</i>	<i>tin</i>
	<i>till</i>	<i>till</i>	<i>till</i>
	<i>kill</i>	<i>tall</i>	<i>tip</i>

In reality, however, it is a complicated network of such classes. The mutual relations of forms in *langue* might, in this case, be roughly schematized as follows:



It should be noted that distinctions of this kind (B) are fairly familiar to any speaker of the language: he wants his forms to be "understood" by his fellows and shifting of any of his forms in any

of such directions as are indicated above might be a source of misunderstandings. The first classes (A), however, are artificial groups which must be established *ad hoc* by the speaker, if he needs for this or any other reason to establish them (as may be the case in rhyming, compiling dictionaries, solving puzzles, etc.).

From the second scheme (B) the following inference may be deduced: A form like *till* is *constantly* a member of three classes of forms at a time. Therefore, any of the three parts of that form is at any moment opposed to a part of some other form. Again, all the three parts are continually, without any interruption, functioning as micro-phonemes, and they are functioning so at the same time. Thus any form may be said to exhibit a certain number of stable micro-phonemes, and it is owing to their stability that micro-phonemes can and must be regarded as constituents of forms. Cases of oppositions like the English *tall*: *all*: *or*: *tore* (without orthographical disguise, *tɔl*: *ɔl*: *ɔ*: *tɔ*) reveal this constituent function of micro-phonemes in an even more striking way. And, if micro-phonemes are constituent elements of forms, the same must be true of macro-phonemes. In proceeding from micro-phonemes to macro-phonemes, a methodical device proposed by Prof. TWADDELL, *viz.* examination of similarly ordered forms, may be adopted just as well as other possible devices. The outcome of the procedure, the macro-phonemes, will naturally not be mere "sums of phonological differentiae", but constituent elements of forms, existing in *langue*, exactly as the forms themselves.

It appears thus that it is not only the premisses of Prof. TWADDELL which conform to the premisses of the Prague school, but that also the conclusions in both cases must be identical, if all the conclusions are drawn from the premisses. Prof. TWADDELL may have been prevented from defining phonemes as constituent elements of forms by his fear that such a formulation might lead, as he says (p. 53), "to a kind of mythology in which the hypostasized phonemes play their rôles, or [to] an equally mythological view of the linguistic process according to which a speaker reaches into his store of phonemes, selects the proper number of each, arranges them tastefully, and then produces an utterance" (p. 53). It is hardly necessary to state that the Prague scholars cannot be reasonably taken to task for the latter kind of mythology. As to the former kind, however, if the establishing of phonological systems and both their synchronic and diachronic examinations are implied, it suffices to be at least partially acquainted with some works of Prince N. TRUBETZKOY and Prof. R. JAKOBSON to see that no mythology, in which the hypostasized phonemes play their rôles, is implied, but a really productive hypothesis which accounts satisfactorily for many hitherto obscure points in the development of languages.¹

The fact that the barrier established by Prof. TWADDELL between

¹ See especially N. TRUBETZKOY, *Die Entwicklung der Gutturale in den slavischen Sprachen* (Mélanges Miletic (Sofia, 1933), pp. 267 sqq.); R. JAKOBSON, *Remarques sur l'évolution phonologique du russe* (Praha, 1929); J. VACHEK, *Prof. K. Luick and Problems of Historical Phonology*, *Casopis pro moderní filologii* (Praha), XIX (1933), 273 sqq.

what he calls the "macro-phoneme" and the Prague phoneme is imaginary and artificial only, is rendered more obvious by another interesting fact, viz. that deductions from both definitions reveal not only a general concordance, as might be expected, but even a concordance in some characteristic details. Thus, in forms like *spill*, Prof. TWADDELL establishes a special macro-phoneme as corresponding to the sound *p*, on the ground that an opposition *p* : *b* cannot occur after *s*, so that the sound *p* cannot be regarded as belonging to the usual macro-phoneme *p*, in such forms as *pill*, *nap*, *tapper*, *pear*, etc. (p. 49). Prof. TWADDELL evidently considers the establishing of such phonemes as a feature distinguishing his own conception of the phoneme from all the preceding ones. Those of the linguists, however, who took part in the First International Phonetic Congress in Amsterdam (1932) will remember Prof. TRUBETZKOY'S highly instructive paper entitled "Charakter und Methode der systematischen phonologischen Darstellung einer gegebenen Sprache" (published in the *Proceedings* of the said Congress), in which the establishing of special phonemes in cases of such "phonological neutralizations" was declared to be necessary.

Many other interesting points of Prof. TWADDELL'S theory might be discussed. But, owing to limits of time, we must confine ourselves to those so far mentioned. We have repeatedly seen some agreements between Prof. TWADDELL and the Prague scholars in points of fundamental importance, and we have tried to show that even his own methods, if thoroughly considered, may lead to the same conception as those of the Prague scholars. That Prof. TWADDELL arrived at a different conclusion is due chiefly to the fact that the method by which his theory is developed is applied to artificial structures of isolated classes of forms, not to the natural structure of intercrossing series of forms. We have perceived that otherwise even Prof. TWADDELL'S conclusion leads to corollaries which are quite analogous to those deduced from the Prague theses. Unfortunately, however numerous the coincidences of both conceptions are, the point in which Prof. TWADDELL differs from the Prague theory is of fundamental importance; by keeping to it Prof. TWADDELL is prevented from taking further steps in the phonological examination of languages, both synchronic and historical.

In conclusion, we cannot but state that Prof. TWADDELL'S contribution, even if its main thesis cannot be approved of, has abundantly helped to the elucidation of many problems connected with the theory of the phoneme.

8. Prof. V. BRØNDAL (Copenhagen): *Sound and Phoneme*.

I must confess that I find myself in a rather difficult situation. The very short time at my disposal has obliged me to concentrate on one single point—and of course I have tried to choose a point which is as fundamental and evident as possible. Now the distinction between Sound and Phoneme may perhaps seem neither fundamental nor evident to a majority of my listeners. In fact, I more than fear

that my theory will be rather unfamiliar to many and even a little unsympathetic to some. On the other hand I shall be able neither to draw all the conclusions from my theory, nor to attempt a verification from concrete fact, nor even to quote and discuss more than a few representative views on my subject.

What I can propose to your consideration will be no more than a provisional sketch—the mere outline of one single line of thought—and I hope you will judge it accordingly.

The problem of Units—units, e.g., of space and time, of weight and value—is of the utmost importance in any science, as it is in ordinary life; and the question seems of particular interest at the present moment in the phonetic sciences where it concerns the distinction between Sound and Phoneme—a distinction which may be said to constitute the very philosophy of Phonetics and Phonology. No problem could then be more appropriate for discussion in a Congress of Phonetic Studies.

In what may be called Classical Phonetics—the science of speech-sounds as represented in text-books—you generally find no such distinction. Sounds are either considered as purely physical, i.e. acoustic and physiological, phenomena—that was the view of the *Junggrammatiker*, or Leipzig school of linguistics; or they are taken as simultaneously physical and mental, as psycho-physical facts—I think that will be the view of most phoneticians to-day.

This view, generally held by workers and students without being examined as to its theoretical presuppositions, may be characterized (1) by the tendency to *isolated* observation of facts (facts which may, or may not, be co-ordinated by further research), (2) by the emphasis laid on the study of *actual* speech (which may, or may not, be used as a base for later generalization). It may be, and it has been, objected that co-ordination and generalization, i.e. unification, of facts should not be a secondary consideration. And that is why some linguists have endeavoured to define phonic units of a higher order and consequently to establish a distinction between the sound as a fact of actual speech and the phoneme as—something different.

The Polish philologist BAUDOIN DE COURTENAY—a pioneer of Phonology—proposed to distinguish between Sound as purely physical and Phoneme as mental; his Russian pupils followed him in defining the phoneme as a "Lautvorstellung" or mental equivalent of a sound. This conception has been criticized, I think rightly, by Monsieur DOROSZEWSKI: in fact a sound is articulated or actualized mentally as well as physically, as is generally admitted by phoneticians; and the phoneme (if such a notion is justified) must be of another kind, not describable in terms of mental elements. This has been acknowledged, I think, by Prince TRUBETZKOY, who now speaks of "Lautbesitz"—a rather non-committal term—instead of "Lautvorstellung".

F. DE SAUSSURE, the famous linguist of Geneva, has defined the phoneme as "la somme des impressions acoustiques et des mouvements articulatoires, de l'unité entendue et de l'unité parlée, l'une