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Consequently a phrase in a lyric poem may be made up of many sense groups each with its own tune, the number of groups depending on the number of new and significant thoughts introduced by successive words. The range of these numerous speech tunes is so small that they fit perfectly into the sweep of the phrase, but small though they are, they carry significance to the listening ear, and, if they are absent, much of the significance of the words is lost.

With regard to the use of emphasis in the speaking of verse, it is obvious that, if we are to control the range of speech tunes, and the pitch of the voice, if we are to express a definite mood, we must choose between the various emphatic devices of ordinary speech-dissociate them one from another. To use a sudden increase of speech energy, for emphasis, in a lyric poem would be to shatter its delicacy; to use a sudden lift of pitch on a stressed syllable will take us out of our mood. There still remains length as a means of emphasis and a change in the pattern of the speech tune (i.e. the fall may occur before the last stress if necessary), neither of which will destroy the lyric quality, while either will give emphasis, and both can be used if necessary.

Again it must be emphasized that to dissociate the emphatic devices one from another, in the abstract, is necessary both to gain an understanding of their special values and to control their spoken use.

The acid test of good speaking is the effect on the listener. The greatest speech-artist is he who conveys most to the listener.

A lovely voice is not enough-magnificent articulation is not enough-to these must be added a thorough understanding of the spoken word, and a control over its expressive qualities.

To know how we want to speak is something, but to be able to speak as we know how to is much, much more, and to achieve this power over ourselves and our medium we need the knowledge that Phonetics gives us.

The papers were followed by an interesting discussion in which the following members of the Congress took part: Professors BÜHLER, CHATTERJI, HORN, ISSERLIN, MUKAROVSKÝ, STETSON, THUDICHUM, TRUBETZKOY, VAN GINNEKEN, Dr AREND, Dr VON KUENBURG, Miss FOGERTY, Miss PATERSON, Mr COLEMAN.

TUESDAY, 23 JULY. AFTERNOON

GENERAL SESSION

Chairman: Prof. M. GRAMMONT

23. Prof. T. O'MAILLE (Galway): An Irish dialect survey, and some general principles of phonetic notation.

I took part, some time ago, in an Irish dialect survey organized by the Royal Irish Academy, at the suggestion, I think, in the first place of Prof. DOEGEN of the Lautabteilung of the Staatsbibliothek of Berlin. The recording of the first series was done by Prof. DOEGEN and Herr TEMPEL. The second and third series were recorded by Herr TEMPEL. We made, in all, about 200 ten-inch records of Irish songs and stories, speeches, etc. from native speakers of the language.

When the records were made, it fell to my lot to write, in phonetic script, the 77 recorded in Galway. Anybody who is acquainted with Irish knows that it has an enormous phonetic range and includes nearly all the language sounds of Western and Southern Europe with quite a good many others.

This richness applies both to vowels and consonants. Even many hundreds of years ago there was a phonetic rule established, viz. caol le caol agus leathan le leathan, or "slender with slender and broad with broad", or, in other words, velar (or back) consonants are used with back vowels and palatals with front vowels, interdentals are used with back vowels and front consonants are used with front vowels. For example, the initials in téad "a cord", déad "a tooth" are front consonants, and the final d is an interdental. The d of $d\dot{a}$ "two" and the t of atá "is" are interdentals and are followed by back vowels (a, o, u).

I may add here that we have an almost complete list¹ of front and interdental consonants. For example: teas, deas, ndeas (neas), leas (front consonants), and tá, dá, ná, lá ("day") which are interdental. As to this interdental group, the only language in which I have met with equivalent or similar sounds is the Marathi² Indian dialect. There are four different n's in Irish, not to mention voiceless forms.

As to the richness of Irish vowels, I may mention the low vowels: (I) æ in cead "leave", (2) æ in fear "a man", (3) æ in feairín "a little man", (4) ā in fearr "better", (5) ā in fearr "better" (a dialect variation), (6) a in bád "a boat", (7) a in báid "boats". Other low vowels may be enumerated, because any one of them may be rounded in connexion with b or m, e.g. compare eo in eolas "knowledge", with eo in *m'eolas* "my knowledge", a very different sound. In addition, the vowels after different consonants may be, and often are, different, e.g. riasg "a moor", riesg; ciall "sense", klieL3 (initial r classing as a "broad" consonant), or, in other words, every vowel is liable to be affected by the consonant preceding or following.

These considerations make it obvious that a very elaborate system of symbols is required to represent the niceties of sound produced by speakers of Irish. It naturally follows that such a system must fit into, or be correlated with, some international system.

I do not intend to suggest here a Weltalphabet or rival system to that elaborated by FORCHHAMMER (Carl Wintersbuchhandlung, Heidelberg, 1924), or to SwEET's organic alphabet which was on a much more elaborate plan. But I do hold that phonetic science, if we are to call it a science, must achieve something more systematic

¹ For further details, see my book, Urlabhraidheacht, p. 14.

² See Urlabhraidheacht, p. 25.
³ In this system of symbols I have, in the main, followed QUIGGIN'S Dialect of Donegal (Cambridge, 1905).

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than that which resulted from the Copenhagen Phonetic Conference of 1928, where it was apparently agreed that each of a large number of systems of phonetic notation must be accepted. I do not so much object to this in principle, but its great defect is that quite a large number of languages rich in sounds (including Irish and all the Celtic languages) were altogether left out of its reckoning.

When phonetic science was established in the second half or towards the end of the nineteenth century, great progress was at first made, and the work of such masters and leaders of the science as SWEET, SIEVERS and JESPERSEN was an inspiration to everybody interested. But its progress during the twentieth century has not, to my mind, justified the promise of the nineteenth, and this is all the more disappointing, because other sciences have, in that time, made such enormous and impressive strides.

Progress in phonetic science is held up by the lack of an adequate and sufficiently accurate phonetic system.

FORCHHAMMER'S system starting with 25 letters of the Latin alphabet, plus 19 others, is altogether inadequate. In dealing with one dialect alone of Irish I have, in my book on phonetics,¹ used upwards of 150 symbols. I could have added 30 or 40 more for lesser shades of sounds which are audible to the trained ear. If I dealt with the three principal Irish dialects I should require to use at least 200 symbols to deal with the subject adequately.

The corresponding sounds are used by Irish speakers, and lack of familiarity with them indicates to the ordinary speaker an incorrect pronunciation.

One can make a rough calculation as to what number of symbols would be required to deal with the principal European languages, not to mention the less-known ones, their dialects and sub-dialects.

FORCHHAMMER (p. 99) quotes PASSY as having 33 symbols in his system. Neither 33 nor 44 symbols would be of much avail in dealing with a world alphabet containing hundreds and even thousands of speech-sounds.

The only adequate remedy, to my mind, for the present very unsatisfactory state of affairs is an even more organized form of the system initiated by the Lautabteilung of the Berlin University.

My suggested solution is the following: (I) a fairly elaborate series of dialect surveys in various countries in the form of gramophone records. To make these surveys, well endowed institutes in the principal countries would be required, at all events in the more important capitals. (2) The gramophone records of these surveys to be written out by native phoneticians in each country, in some of the better-known phonetic systems. (3) It would then be the business of the central phonetic institutes to tabulate and index the various sounds occurring on the records. Copies of the records would have to be kept in the institutes where the systems would be tabulated.

(4) As a final system I should recommend the very simple one of either the ordinary roman or italic alphabet with each of the vowels

¹ Urlabhraidheacht, published by the Educational Company of Ireland, Dublin, 1928.

numbered. As stated above, in one dialect of Irish I found it necessary to record seven low vowels from front to back. I could easily increase their number to mark finer distinctions.

The symbols for the low vowels would then run say as follows: $a_1, a_2, a_3, a_4, \ldots a_n$, that is up to the entire number recorded, every shade of sound capable of being heard by the trained ear having a different numerical symbol. The consonants could be arranged on a similar principle.

The point at which a different symbol would be required could be determined in one of the following ways: either (a) where a difference, say, between \mathbf{a}_2 and \mathbf{a}_3 can be observed by a trained ear or by a native speaker of the particular languages, or (b) where a marked difference can be ascertained by any experimental method.

In this connexion it may be well to refer to SIEVERS' dictum that nothing counts in phonetic change in language except what can be heard by the ear [of the native speaker]. This point of view has probably not yet met the consideration it deserves in phonetic study.

If such a method and such a system as that outlined above were adopted, to my mind, significant consequences would follow: (I) It would link up two important sides of phonetics, the experimental (so-called) and observation by the trained ear. (2) It would put phonetic investigators in the position that we should not, for example, have to refer, say, to a vowel occurring in a particular position in southern French or in an Italian dialect, in German or in Irish, but we should speak of an actual published record where the position of the particular vowel would be definitely determined and the actual sound be available to every investigator for description and discussion. Great clarity and definiteness would, in this manner, be obtained.

(3) It would also make possible the investigation of a possible original, perhaps prehistoric connexion between peoples using the same or similar sounds.

(4) It would, after the lapse of a generation or so, form a very definite and precise means of determining the effect of time on a language, an effect which we have, at present, no adequate means of determining in the physiological sense.

24. Prof. J. VENDRYES (Paris): Phonologie et langue poétique.

Résumé. Il est assez naturel d'étudier l'usage des poètes pour se renseigner avec exactitude sur la phonologie d'une langue. Les poètes mettent en pratique—généralement sans le savoir, mais avec un instinct plus sûr que celui des autres hommes—les principes phonologiques de la langue qu'ils emploient. La phonétique des poètes est par définition phonologique: c'est des ressources de la langue qu'ils tirent les combinaisons de sons destinées à produire sur leur auditoire les effets désirés; ils mettent en œuvre mieux que quiconque les valeurs d'expression et d'opposition caractéristiques de leur langue.

Mais la langue poétique est toujours plus ou moins une langue artificielle; la technique des poètes admet par convention des principes