

A LINGUISTIC ANALYSIS OF THE SIXTEENTH INTERNATIONAL CONGRESS FOR PHYSIOLOGY

At various international congresses, four languages are usually made official. This is especially true of the international congresses for physiology, the sixteenth of which met from August 14 to 19 last summer in Zurich. I have analyzed and classified various papers appearing on the program of that congress according to the languages in which they are presented with rather interesting results. Such a study obviously gives a sort of index to the languages most used in publishing or announcing the results of scientific investigation and also roughly indicates the amount of research carried on by the various peoples employing these mother tongues. The following are some of the statistical findings:

The total number of papers presented at the sixteenth International Congress for Physiology in Zurich last summer was 437. Of these, 211 were given in English, 143 in German, 59 in French and 24 in Italian. It is quite evident from these figures that the two languages most widely employed by the scientists were English and German, the sum of the two constituting over 80 per cent. of all the papers written. This, however, by no means indicates that a large amount of work is now being done in the Third Reich, because a further analysis of the 143 papers presented in German reveals that only 61 of these came from scientific workers in Nazi Germany; the rest of the communications in that language were read by a large number of German-speaking authors from other lands, including 10 from Czechoslovakia, 21 from Switzerland, 13 from the Netherlands, 4 from Austria, 9 from Hungary, 2 from Poland, 6 from Sweden, 1 from Norway, 3 from Palestine, 1 from Greece, 1 from Finland, 3 from Turkey, 2 from Italy, 1 from Esthonia and 1 from Belgium. Of the 211 English papers, 132 came from the United States and Canada; the rest emanated from the British Isles and other English possessions. Of the 59 French papers presented at the congress, 26 came from France, 17 from Belgium, 3 from Argentina, 1 from Italy, 2 from Poland, 1 from Portugal, 3 from Switzerland, 3 from Czechoslovakia, 1 from Serbia, 1 from Greece and 1 from Hungary. Of the Italian papers, 22 were presented by Italians; one was read by a Swiss and 1 by a Belgian.

The analysis made above becomes more interesting when it is compared with that of the thirteenth International Congress for Physiology, which met in Boston in 1929. At that congress also English and German were the dominating languages. The total number of papers listed was 585, of which 391 were in English

and 106 in German, 62 in French and 23 in Italian. Of the 394 papers in English, 292 emanated from the United States, 26 from the British Isles, 14 from Canada, and the rest from other countries in various parts of the world. Of the 106 given in German, 61 (or 58 per cent. of the total) came from Germany itself. The remaining number consisted of 5 from Austria, 9 from Russia, 6 from Switzerland, 10 from Hungary, 9 from Czechoslovakia, 4 from the Netherlands and 2 from Esthonia. Of the 62 French communications, 37 came from France proper; the rest were presented by Belgians, Spaniards, Poles, Russians and Roumanians.

It is fair to assume that the number of members attending an international congress will vary inversely in proportion to the distance the individual scientists are obliged to travel from their place of origin to the place of meeting. Thus, when such a congress takes place in the United States, it is to be expected that the number of Americans and Canadians, and perhaps of English, attending the meeting will be greater than that of members coming from central Europe. *Vice versa*, when a congress meets in Switzerland, it is reasonable to suppose that a much larger number of scientists will come from such nearby countries as Germany, France and Italy than will arrive from across the water. An analysis of the members presenting papers at the two congresses, however, revealed the striking fact that there were actually just as many German papers presented at the Boston meeting in 1929 by those hailing from Germany proper as there were at the 1938 congress in Zurich. It is interesting to note that the number of French papers presented was very nearly the same at both the thirteenth and sixteenth International Congresses for Physiology; so also was the number of Italian papers.

The foregoing study warrants several tentative conclusions: First, it is obvious that the English language is more extensively used than any other as a medium of scientific communication and that the German comes second in popularity. Second, it is evident that nearly one half of the German communications made at the Zurich congress were presented not by Nazi physiologists but by German-speaking scientists widely distributed in other lands. Third, judging by the number of papers presented by Nazi physiologists at the Zurich congress as compared with the series read at the Boston congress in 1929 by scientists from Germany proper, it appears that the amount of scientific investigation (without any regard to its quality) now being done in the physiological sciences in the Third Reich is far below that produced there after the world war during the reign of democracy.

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