

DEVELOPMENT OF INTERNATIONAL STATISTICS

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IN THE first half of the nineteenth century the North Atlantic area saw an efflorescence of statistical societies. Over thirty of them, usually *urban* in name and character, sprang up in England, Scotland, Ireland, France, several German states, the United States, and Mexico. Nearly all soon withered but the Statistical Society of London and another in this country were exceptions. The former thrived and half a century later became the Royal Statistical Society. The latter called itself the American Statistical Association but provided that its annual meetings should be held in Boston and notwithstanding its name was in fact through over half a century little more than the statistical society of Boston.

During the same half century *national* organizations of natural scientists began to form. An early and important one was the Association of German Scientists founded in 1822 by a handful of scholars in that complex of countries. After a few dark years it won royal approval from Bavaria and Prussia and, more important, received the allegiance of scientists the world over after it had elected Humboldt as president. He was the recognized head of the naturalists of the world, as distinguished in his field as Napoleon or Goethe were in theirs.

Babbage, the main founder of the Statistical Society of London which soon became the cradle of international statistics, attended the coming out session of the German society at which Humboldt presided and three years later played an important part in launching the British Association for the Advancement of Science, founded in frank imitation of its German prototype. The main object of these societies and their successors, whether in the field of the natural or of the social sciences, was and is to promote friendly intercourse, national and international, among scholars with common interests.

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The British Association organized in 1831 found at its third meeting that the five divisions of science which it recognized did not cover the whole field and a sixth section called statistics was added, though without full authorization of the governing body. Babbage, the moving spirit in the expansion of its field, speaking at the request of the president of the Association, explained that a statistical section had been formed largely to receive important papers brought to it by a distinguished delegate of a foreign country. That delegate was Quetelet of Belgium who had come to England mainly to attend the meeting of the Association and who contributed materially to the formation of its statistical section. He was already so renowned as a mathematician and astronomer that he could not be looked down upon by the members of the British Association even though he had recently stooped to statistics. Among the statistical section's other sponsors were Malthus and Richard Jones, newly appointed professor of economics at Kings College, London. However, the supercilious attitude of many devotees of natural science toward the intruder led Quetelet to suggest and his English friends to put through a plan for creating in London an independent Statistical Society.

Quetelet has been hailed as the founder of international statistics;² that statement seems to me only a part of the truth. To be sure he had recently elaborated the scientific basis of statistics in the theory of probabilities, had helped with the Belgian census of 1830 and was the most widely known and influential statist in Europe. But in founding international statistics he was greatly aided, as we shall see, by his pupil and friend, Prince Albert of Saxe-Coburg-Gotha, cousin and later husband of Queen Victoria. As the importance of Albert's cooperation has not received adequate attention, you will allow me to explain why I attach such importance to it.

Victoria had lost her father in her infancy and her education was guided by her uncle Leopold, afterwards king of Belgium.

² Flicker, A.: die statistique internationale wird stets Quetelet's grossartigste Schöpfung bleiben, *Statische. Monatschrift* 1, p. 13, 1875.

She and her cousin, Albert, met for the first time at the age of 16 during Albert's visit of several weeks to his English relatives; on that occasion a marriage between the cousins, long hoped for by the families, was suggested to Victoria. She was interested but obviously too young for a decision. However, Albert's education thereafter was shaped with the probability of that marriage in mind. He was sent first to Brussels, where he could study from the inside the working of a constitutional monarchy after the English type administered by his uncle. At this stage Leopold's secretary, Stockmar, exercised such influence that the saying, "Stockmar created Albert and Albert created Victoria," has truth enough to justify its mention. Before Albert went on to the university Leopold or Stockmar put him for some months under Quetelet. The relationship which started as one between a bright boy of seventeen and a great teacher of forty grew into a friendship which lasted until Albert's untimely death twenty-five years later. Shortly before he died Albert, as president of the fourth session of the International Statistical Congress, hailed Quetelet as the man who had introduced him to higher mathematics and elucidated their application to social phenomena, a field in which laws might be discovered only by accumulating and interpreting statistics.

A preliminary step toward founding international statistics was taken by Albert, when he organized the London International Exhibition of 1851, first of a long series. The burden of starting it and of persuading public opinion in all parts of the world to favor and participate in it fell on him. National exhibitions of limited range had been held in England before 1851 by a society of which Albert became president. When he proposed that the society should enlarge the scope of its Exhibition by making it international the idea encountered much opposition but Albert's tact, energy, and enthusiasm surmounted all obstacles and carried it to a success unforeseen and triumphant.³

³ "In 1849, he began a train of thought which was to bring him his greatest success in England: the Exhibition of 1851" Bolitho, Hector, *REIGN OF QUEEN VICTORIA*, 1948, page 112.

Some of Albert's followers in England and Quetelet in Belgium had dreamed that the Exhibition would bring together not only men of affairs but also scholars into scientific conference and thus facilitate international intercourse at another level. Before it was held Quetelet had written to Albert: "Assuredly I shall go to Engand. . . . These are the tournaments of modern times. Your Royal Highness has appreciated the social transformation now in progress and in placing yourself at the head of this great movement you give a fresh proof of your sagacity."⁴ On his return to Brussels Quetelet and another member of the Belgian Statistical Commission proposed to their English friends that an International Statistical Congress should be organized to work for greater comparability in statistical publications.

The plan was approved, the Congress met in Brussels in 1853 and achieved a notable success; twenty-six countries were represented and many of the leading statisticians of the world attended. In an Introduction to the Report Quetelet expressed the hope that future work of the sort in all countries would take account of the recommendations of the Congress and would adopt uniform bases for their statistics so that the results reached in different areas would be comparable. The possibility of such a result, he said, had been shown, its framework settled, and the wisdom and harmony revealed in the final report were an augury of success.

The Brussels meeting expanded into a series of nine sessions held between 1853 and 1876 in as many different European countries. But at later meetings the technical experts were almost swamped by the increasing body of amateurs or interested listeners. To remedy this defect Quetelet proposed to the fourth session that the official delegates and experts should meet by themselves just before or after the main session. The seed fell on good ground. The proposal after being debated at subsequent sessions ripened into a comprehensive plan for a cooperative work on international statistics, the *Statistique*

⁴ Martin, Theodore,; *LIFE OF THE PRINCE CONSORT*, Vol. 2. p. 244.

Internationale, the guidance of which was to be placed in the hands of a Permanent Commission of the Congress. This Commission created in 1872 met four times in the next six years. Its final meeting was devoted mainly to an effort to perfect its own organization and to define and enlarge its field. It proposed to publish in Paris an international statistical annual and a statistical bulletin both in French, as the accepted language for international intercourse.

Regarding these proposals the German representatives, probably acting on a hint from Bismarck, declined to commit themselves, and when another meeting of the Commission was at hand several countries were unwilling to accept the invitation to attend that meeting or the Congress itself planned for the following year. So the Hungarian president of the Commission wrote to the other members:⁵ "All the German states have refused to be represented on the Permanent Commission; Switzerland has followed this example; representatives of Spain and of Sweden have sent excuses; Portugal and Holland have not answered; regarding England and Russia I am not even yet in a position to know whether they will be officially represented or not. Under these circumstances. . . . I have at last decided to postpone the session." And thus both the Congress and its Permanent Commission came to an end.

The preceding narrative shows that German opposition to tendencies in the Statistical Congress and especially in the Permanent Commission was mainly responsible for their death. But the underlying cause of their collapse lay deeper; it lay in the difficulty of reconciling two different conceptions of the function and field of the Congress. This difficulty had been clearly stated by Albert fifteen years before in the address already mentioned. He then said:

It would have been more properly within the province of a member of the Government, and Minister of the Crown, to fill this Chair and open the proceedings, as in previous meetings.

⁵ *Allgemeine Zeitung*, June 14, 1885, as quoted in *Royal Statistical Society Jubilee Volume* p. 343.

[But] the nature of the institutions and the habits of the people of this country could not fail to influence its organization. We are a people among whom every question of interest to the nation is publicly canvassed and debated; the whole nation takes an active part in these debates, and arrives at a judgment with regard to them. This congress could only be, either a private meeting of the delegates of different Governments discussing special questions of interest, or it had to assume a public and a national character; the Government have chosen the latter alternative. They have wisely chosen; for it is of the utmost importance to the object the Congress has in view—namely, not only the diffusion of statistical information, but also the acquisition of a general acknowledgment of the usefulness and importance of this branch of human knowledge—that the public, as a whole, should take up the questions which are intended to be investigated, and should lend its powerful aid.⁶

At later sessions the Congress sought to work toward both of the objects mentioned by Albert through detaching the Permanent Commission, as “a private meeting of the delegates of different Governments discussing special questions,” from the Congress proper but the attempt failed and Congress and Commission died. Then an effort was made in France to continue international collaboration in demography, as a part of the broad field of statistics. The editor of the *Annales de Démographie Internationale* proposed holding an International Congress of Demography in connection with the Paris Exposition of 1878 and near in time to what proved to be the final session of the Permanent Commission. Although it was held and was well attended, demography alone, it appeared, furnished an inadequate basis for a series of international conferences. Because of that fact demographers soon affiliated with a parallel series of International Congresses of Hygiene to form the International Congresses of Hygiene and Demography which met at irregular intervals between 1878 and 1912. What proved to

⁶ Collection of British Authors, Tauchnitz edition, Volume 850, SPEECHES AND ADDRESSES OF THE PRINCE CONSORT, Leipzig, 1866, page 229 f.

Another reference for the quotation is *Quarterly Journal of the Statistical Society*, Vol. 23, 1860, page 277 f.

be the last meeting of this series was held at Washington. It adjourned in the expectation that the next session would be in Russia five years later but in 1917 that country had no energy to spend on international statistics. So this series died during the first World War as the International Statistical Congress had died after the Franco-Prussian War.

The death of the latter and of its Permanent Commission left in the minds of many European statisticians, however, a sense of loss and, I am sure, an irritation over the way in which they had been treated. So six years later, when the jubilee meeting of the Statistical Society of London was at hand and the twenty-fifth anniversary of the Statistical Society of Paris was only a year away, the time seemed propitious for a new start which should profit from the mistakes of the earlier Congress. The death of Queen Victoria's son in 1884, by postponing the jubilee meeting of the London Society, brought the two anniversary celebrations within a few days of each other and resulted in their becoming almost one session in two capitals and their being attended by much the same group of statisticians from Austria, Hungary, France, Italy, England, Norway, and the United States; none came, however, from any German state. The Statistical Society of London had enlisted in advance the aid of Neumann-Spallart of Vienna, who brought with him to London not only a résumé of the results of the Statistical Congress but also a draft of statutes for a prospective International Statistical Institute which he had prepared with the help of Bodio of Italy. After the draft had been discussed it was referred to a committee composed of statisticians from England (Mouat, Martin) Austria (Inama-Sternegg, Neumann-Spallart) Italy (Bodio) France (Levasseur) United States (Walker) Russia (Troinitsky) Norway (Kaier) Hungary (Keleti) and Greece (Argyropoulos). The committee recommended only minor amendments, the most important being the omission of everything tending to give an official character to the new Institute. The new draft was adopted with a proviso that its wording be revised and settled at the Institute's first regular meeting.

At the London session twenty-two persons present from eight countries were elected and fifty-one more from eight other countries invited to join. Among the fifty-one were the director of the German Imperial Statistical Department (Becker) and the director of the Royal Prussian Statistical Bureau, (Blenck). They replied jointly to the invitation asking for more information about a seeming conflict between their position as official statisticians and their possible position as members of the new Institute.

The kernel of the reply from the president, Sir Rawson Rawson, lies in the following sentence: "While the direct object of the Congress and Permanent Commission was to influence Governments, that of the International Statistical Institute is to acquire and perfect statistical knowledge and to furnish information to those Governments."⁷ The reply was satisfactory and, before the first regular session of the Institute opened at Rome two years later, they and about a dozen other Germans had joined.

But the aloof attitude of the Imperial German Government continued. Sixteen years had passed and the Institute had held seven sessions in various European capitals before Germany invited the Institute to meet at Berlin. Even then, I was told, the hand of the imperial government was forced by a suggestion that, failing an invitation from it, Bavaria would invite the Institute to meet at Munich.

The practise of the Institute from the start had been, as it remains, to use French in its official communications, that being the recognized language of diplomacy. An earlier practice now discontinued was for the president of the Institute to send notes of invitation through the Foreign Office of the country which was the host to each member notifying him of the approaching session. But, when the Viennese president sent his notes prepared in French to Berlin to be sent out, word went back that, if the meeting was to be held in Germany, the in-

⁷ Bulletin de L'Institut International de Statistique, Tome 1, 1ère et 2ème Livraisons, page 33.

itations should be in German. Finally the difference was patched over by a bilingual invitation.

Just before the first World War the Institute had set up a Permanent Office to gather and publish international statistics. It was put in charge of the Secretary General at the Hague and his ability and diplomacy, much aided I feel sure by the wisdom of President Bodio, were mainly instrumental in keeping the Institute alive and able to continue its publications through that war.

The last pre-war meeting had ended in accepting an invitation from Belgium to meet at Brussels in 1915. When the war was over the question of the relation between the prospective statistical work of the League of Nations and similar work already prosecuted by various international organizations, of which the Institute was probably the most important, was studied by a representative commission of twelve members. They could not agree on an answer to the fundamental question: Should the league set up a statistical section of its own or should it rely upon existing organizations?

Thereupon the League, because it wanted advice upon important statistical problems, moved to have the Belgian invitation revived and, when that occurred, set up several joint committees on the main problems, reports from which were ready when the Institute gathered at Brussels in 1923. At that time there were three vacancies on the Bureau or Executive Committee caused by the deaths of Bodio and Meyer and the illness and absence of von Mayr. The vacant places which had been held by an Italian, an Austrian and a German were filled by a Belgian, an Austrian and an American, this being only the second time that a non-European had been given a place on the governing board.

Among the American members present at Brussels was Hadley who had retired two years before as president of Yale. At that meeting he developed an interest in the Institute which continued until his death seven years later and did much to win increased support for it in his own country.

After the meeting in Brussels and another two years later in Rome eight meetings were held before the second war, seven of them, all but the London session of 1934, the centenary of the Royal Statistical Society, being in countries (Egypt, Poland, Japan, Spain, Mexico, Greece and Czechoslovakia) in which the Institute was meeting for the first time. In each case the session led to a marked increase of interest in statistics and a realization of the need for it if the country welcoming the Institute was to be governed with intelligence.

That the Institute survived the second World War, as it had survived the first, was due in large measure to the same two favoring circumstances, first, the existence of a Permanent Office under wise leadership which continued to publish although fitfully in the face of increasing obstacles, and, secondly, the Institute's acceptance before each war broke out of an invitation to hold its next meeting at a certain time and place, together with support adequate to get the invitation revived after the session had been postponed by the war.

In the preceding sketch emphasis has been placed on the initial success and the ultimate failure of the German Government to displace French by German as the international language and to block the continuance of international statistical organizations based on the equality of all nations participating. This has been done partly because it seemed an important but neglected part of the history and partly because it leads us to hope that the experiences of statisticians with Germany may be repeated some day with Soviet Russia.

Now a new constitution of the Institute has been approved and adapted to the conditions of today, a supporting regional organization covering the Western Hemisphere has already been established, and there is a chance that other organizations will arise elsewhere; now, too, relations between the Institute and the United Nations are more cordial and cooperative than the relations it had with the League of Nations. With these advantages and with a plethora of statistical problems calling for study, the outlook for international statistics seems en-

couragingly bright. Certainly great progress has been made in the century since the Prince Consort began to prepare for the London Exhibition.