Check for updates

Neuro-Humanities/History of Neuroscience

CLINICAL and TRANSLATIONAL NEUROSCIENCE

Clinical & Translational Neuroscience
January-June 2020: 1–5
© The Author(s) 2020
Article reuse guidelines:
sagepub.com/journals-permissions
DOI: 10.1177/2514183X19898135
journals.sagepub.com/home/ctn
SAGE

Early globalization of neurology—The First International Congress of Neurology 1931 in Bern, Switzerland

Jürg Kesselring

Abstract

The First International Neurological Congress took place in 1931 in Berne, Switzerland, convening among >800 participants were many of the best-known neurologists and neuroscientist of that time. It had a great impact on the acknowledgement and acceptance of neurology as a specialized field in medicine and led to the formation of University Chairs and Neurological Societies in various countries.

Keywords

Globalization, history of neurology, Int Congress Bern 1931

The First International Congress of Neurology, held in 1931 in Bern, Switzerland, led in fact to an early globalization of neurology. There were forerunners to this congress[1]: International congresses for (general) medicine were regularly organized. One of the most famous was the one in 1881 in London. According to a report in the *British Medical Journal* of August 13, 1881: "3,000 men have gathered at this congress for a week, among them the most fashionable spirits of the age." Cerebral localization was discussed on the basis of Broca's clinical description of aphasia in 1861 and of von Fritsch and Hitzig experiments back to 1870. David Ferrier demonstrated his experiments on monkeys, which led Jean-Martin Charcot to claim that these monkeys were similar to hemiplegic patients. The large number of congress participants suggested to plan and organize future meetings in small groups. In 1914, an International Congress for Neurology was planned in Bern, Switzerland. The correspondence between the Swiss neurologist Constantin von Monakow[2] and his Dutch colleague and friend Cornelis Winkler[1] tells of the planning to organize it in September this year. On August 1, 1914, Winkler wrote to von Monakow: In a postscript to the letter, he remarked: "I believe that August 1st, 1914, will be a historic day." On the same day, Monakow wrote to him: "The war, the dreaded European war is imminent, and Switzerland is also preparing to send troops to the threatened borders." Austria-Hungary declared war on Serbia on July 28, 1914, after the assassination of Sarajevo on June 28, 1914. von Monakow realized that his colleagues in Europe argue more "for obvious national and economic tasks and other thoughts than for scientific questions; and this means—even if it has not yet been decided—that the Bern Congress, which was already prepared so well, is unlikely to take place."[1]

Monakow's role in founding the Swiss Neurological Society and the Swiss Archives of Neurology and Psychiatry has been reported here a year ago.[3] He was shocked by the fact that after all these experiences there was again war on European soil and he tried to process his shaking in literary writings.[4]

Digression on neuro-psychological comments on World War I

There might also have been a justification for such an International Congress of neurology considering all the

Rehabilitation Centre, Department of Neurology & Neurorehabilitation, Valens, Switzerland

Corresponding author:
Jürg Kesselring, Department of Neurology & Neurorehabilitation, Rehabilitation Centre, Taminaplatz 1, CH—7317 Valens, Switzerland.
Email: juerg.kesselring@kliniken-valens.ch

Creative Commons Non Commercial CC BY-NC: This article is distributed under the terms of the Creative Commons Attribution-NonCommercial 4.0 License (https://creativecommons.org/licenses/by-nc/4.0/) which permits non-commercial use, reproduction and distribution of the work without further permission provided the original work is attributed as specified on the SAGE and Open Access pages (https://us.sagepub.com/en-us/nam/open-access-at-sage).

new data brought by war wounds. Pierre Marie (1853–1940) writes at the time:

> The war will have been an inexhaustible source of new knowledge for us in the most varied of fields. In particular, neurologists must recognize that they have learned a great deal, in a domain where they had much to discover, that of war neurology.[5,6]

There was at that time a tendency to turning social and political problem areas into scientific consideration ("Verwissenschaftlichung sozialer und politischer Problembereiche"[7,8]). According to the German War Sanity Report of 1914–1918 (cited in the work of Kaufmann,[7] p. 206: "Sanitätsbericht über das Deutsche Heer im Weltkriege 1914/1918. Bd. 3. Berlin 1934"), 613,047 war participants were treated because of "diseases of the nervous area" in hospitals . . . (so-called "Kriegszitterer" . . . War hysterics, fright neurotics, War neurotics"). The motionlessness was described in the industrialized war:

> For if one stands in the ditch and cannot move, when the mines and shells come, that is probably a fight, but not a living deed, but the gruesome opposite of it. This is the most horrible thing in the present war, everything becomes machine-like, one could call the war an industry of industrialized human slaughter . . .

Powerful educational influence of the war was seen by some as a means against the harmful effects of the modern development on the people's soul " . . . that there are many young volunteers whose nervous system is simply not sufficient for the fatigue and horrors of modern war."

At the time, well-known neurologists and psychiatrists also commented on the problem of war or the psycho-social effects and conditions:

Otto Binswanger: The psychic effects of war: the "hysterical personal reaction without sharp boundaries to health."

Emil Kraepelin: "hysteria: a personal reaction mode without sharp borders towards the breadth of health ("eine persönliche Reaktionsart ohne scharfe Grenze zur Gesundheitsbreite") . . . Desired hysterical symptom formation ("wunschbedingte hysterische Symptombildung"): escape from war into disease . . . rescindable by medical hypnosis and thus proved as a functional nerve disorder."[9]

Karl Abraham: "However, the healthy [is] capable of sacrificing his ego for the whole . . . labile people who have failed in practical life with reduced sexual activity and homosexual predisposition."

Robert Gaupp: "prisoners of war . . . specific character picture and lifestyle with specific social assignment: genetic defects, selfishness and recklessness, baseless affect-people, asocial derailed, irritable querulants and agitators."

Sandor Ferenczi: regressive personality: "as a result of the terrified, frightened, self-indulgent, unrestrained, bad child."

Max Nonne: "The old misery has packed us every day ("Der alte Jammer hat uns ja täglich gepack . . . ") that the war made Darwinian selection in the reverse direction with great success: the best are sacrificed, the physically and mentally inferior, useless and pests are carefully conserved, rather than at this auspicious opportunity a thorough catharsis would have taken place, which would also have transfigured by the flourishing appearance of the hero's death, the parasitic on the people's force."[7]

> There had previously been other international congresses of physicians, and even of neurologists, but to neurology, and to medicine generally, the meeting at Berne had peculiar vitality and significance. It was the first time after the World War of 1914-18 that neurologists from Germany, France and England, as well as of other countries of the world, had found it possible to have a joint meeting, and it proved to be one that was little marred by politics or the old animosities of war. But the gathering was. also remarkable for other and quite different reasons; these had to do with personalities.[8]

A precursor to an International Congress of Neurologists was Salomon Henschen's idea of his "Academia Neurologica Internationalis,"[10] with which he wanted to "revive" the International Brain Commission, but finally failed (for which he did not least blame his long-time competitor Constantin von Monakow).[11]

In the summer of 1927, two prominent neurologists met in Bad Gastein, Austria: Bernard Sachs (1858–1944), Vice President of the American Neurological Association (ANA) and Otto Marburg (1874–1948) from Vienna. On February 18, 1928, the ANA wrote a letter to the "international community":

> The council of the American Neurological Association finds the present time opportune to propose an International Neurological Congress to be held in late summer of 1931 . . . Pleased as the American Neurologists would be to receive their Colleagues in the United States, they believe that a larger attendance would be secured if the International Congress were held in some centrally located and accessible country such as Switzerland or Holland.[12,13]

There were enthusiastic responses, for example, from Gordon Holmes (1876–1965), Editor of Brain: "I have received the official circular with regards to the International Neurologic Congress which you propose . . . the idea of starting an International Neurological Congress appeals very strongly to me" . . . "It would be certainly wiser to have the meeting in Scandinavia, Holland or Switzerland, as the only difficulty may be to get the French and Germans to mix," or from Klaas Herman Bouman (1874–1947) of the Dutch Society for Psychiatry and Neurology: "[We]

greatly appreciate the iniatiative [sic] of the Amer. Colleagues."[14]

On August 29–30, 1929, one or two delegates from 20 countries met in Bern as "notable figures" for the planned congress, including Paul Robert Bing (Switzerland, 1878–1956), Ludo van Bogaert (Belgium, 1897–1989), Constantin von Economo (Austria, 1876–1931), Otfrid Foerster (Germany, 1873–1941), Georges Guillain (France, 1876–1961), Knud H Krabbe (Denmark, 1885–1961), Otto Marburg (Austria), James Purves-Stewart (England, 1869–1949), Gustave Roussy (France, 1874–1948), and SA Kinnier Wilson (England, 1878–1937).

At the opening of the congress on August 31, 1931, the President, Bernard Sachs (1858–1944) from New York, welcomed 890 participants from 40 nations and 6 continents and declared: "The purpose of this congress is to establish personal contacts and to unite the neurologists of the entire world."

> On the opening day of the Congress, Arnold Klebs, in the true spirit of Swiss hospitality, gave a dinner to which he invited many old friends, and a good many new and younger friends to meet one another, and also to meet his Swiss colleagues, Professors Sahli, de Quervain, Wegelin and Asher . . . At the end of the dinner Dr. Klebs made a speech of welcome, which no one present, dinner or no dinner, could possibly forget . . . I stole the text, copied it, and I give it to you here without securing the permission of the speaker.[8] (p. 334)

And Klebs ended by welcoming Harvey Cushing with a valuable hint at persuing Medical history (useful for all of us):

> Harvey, what shall I say to welcome you to the town that is as much yours as mine? The letter you wrote home from here in 1901 gives me the key. Your versatility has always amazed me but I did not realize what an excellent medical historian you were already then. The preoccupation with batrachian hearts at Kronecker's and with thyroid com plexities at Kocher's did not prevent your going to the Stadtbibliothek to study Haller at the source, in his *Tagebücher*. His unfathomable erudition bothered you and you wanted to discover his human side. It relieved you to find him noting 'perdu au jeu' or a 'bouteille de vin'. You compared him to John Hunter who hated lecturing, but became the guiding star of many followers, while Haller with all his gifts left no personal school. You in your own career have followed Hunter. Your boys from Brigham, some of whom I am delighted to see here with you, will heartily agree that you have succeeded. They are your living history. Some historians can predict but to few it is given to show that they have learned from history. Keep it up, Harvey, give us some more 'from tallow-dip to television'. Don't forget what you said in perfect Bärndütsch: Nit nolo g'wunnt![8] (p. 335)

During the opening ceremony at the Casino of Bern, the Rector of the University gave honorary doctorates to Harvey Cushing from Baltimore, the famous founder of neurosurgery, who had conducted experimental research with Theodor Kocher (1841–1917) and Hugo Kronecker (1839–1914) in Bern 30 years earlier and to Sir Charles S Sherrington, the well-known neurophysiologist, who was awarded the Nobel Prize in 1932. The laudatory texts were read in Latin. In the opening address (which was also printed in the four congressional languages [!]), President Bernhard Sachs further stated:

> Neurology has made a great contribution to the astonishing progress in general medicine and surgery . . . and a review of the work of previous and current neurologists would help us recognize what medicine and the specialties have to be thankful to neurology. Thorough knowledge of neurology should play an important role in any medical curriculum and each hospital should treat nervous disorders at specific wards and by men and women specially trained and equipped for the job. We neurologists have suffered from an excess of modesty or a minimum of assertiveness while others have shouted from the rooftops. The outcome of this congress will be, I am sure, sufficient evidence of the importance of neurology in the medical and surgical sciences.[15] (p. 18)

This goal was undoubtedly achieved: after almost 16 years of uninterrupted animosity, neurologists, representing all belligerent nations from 1914 to 1918, found themselves in neutral territory. They exchanged pleasantries "at a steady stream of smokers, high teas, late-night dinner parties, dances, and a host of field trips to nearby cultural attractions, all the while discussing the science and medicine of the nervous system."[13,15] The congress has significantly advanced the international recognition of neurology as a specialty of medicine.[11,16]

In the scientific sessions, there were the following topics:

Diagnostic and Therapeutic Procedures in Brain Tumors with Clovis Vincent Paris; Robert Foster-Kennedy, New York; Wilder Penfield, Montreal; Otfrid Foerster, Wroclaw; Harvey Cushing's presentation "The Surgical Mortality Percentages Pertaining to a Series of 2,000 Verified Intracranial Tumors" and Tracy J Putnam on "Organo-Therapy in Brain Tumors" then on muscle tone; Anatomy, physiology and pathology; Neurosurgical therapy; Clinical Neurology; Clinical-Pathological Demonstrations with two educational films on Hydrocephalus and Wilson's Disease by Otto Marburg, Vienna; on Neurological Research with a Film Screening on Localized Brain Stem Stimulation by Walter Rudolf Hess, Zurich, Nobel Laureate 1949.

Furthermore, on acute non-purulent nervous system infections with presentations by Constantin von Economo (who died of encephalitis a few months after the Congress) and Friedrich Lewy on inclusion bodies; Brain tumors and related subjects; Neuro-pathology; Neurological examinations: CU Ariëns Kappers, Amsterdam: "The Brain of Prehistoric and Recent Races"; Robert Bárány, Vienna:

"The Theory of the Cortical Mechanisms of Association"; Cortical Mechanisms of Association; Robert Wartenberg, Freiburg in Breisgau: "Neuritis in the Hand"; Constitutional Problems—Neuroses: Ivan P. Pawlov, Leningrad: "Experimental Neuroses"; two sessions on brain trauma: Charles P Symonds, London: "The Effects of Injury Upon the Brain" and Harold G Wolff/Maurice Levine, Boston: On Cerebral Circulation; and final sessions on multiple sclerosis and infections; brain tumors; experimental neurological examinations and clinical and biological topics with films on extrapyramidal arm reflexes by Th. B. Wernoe, Copenhagen, and a film on lower limb movement disorders by F de Quervain, Bern.

The importance of the congress to science as a whole is difficult to estimate, but most of the presentations were not limited to the lectures themselves: 120 of the 199 lectures were subsequently published as elaborated scientific papers: 44 in German, 24 in French, 19 in American, 15 in Italian, and more in Swiss, British, and Austrian magazines.

On Thursday, September 3, in the pouring rain, Welch, Sherrington, Cushing, and Arnold Klebs, along with several Swiss physicians (de Quervain, De Coppet, and Fischer) went out with a number of the younger American physicians to lay wreaths on the graves of Kocher, Kronecker, and Edwin Klebs (1834–1913). The ceremony resulted from Dr Cushing's inspiration and nothing could have been more touching to the hearts of the people at Berne[8] where the touching speeches at the graveyards are recorded.

On the final day of the Congress, September 4, 1931, a meeting was held at the Palace Hotel Bellevue on the subject of "Neurology as an Independent Specialist," at which "The Relationship of Neurology to General Medicine and Psychiatry in Universities and Hospitals of the Different Countries" was discussed. Participants included Max Nonne, Germany, Constantin von Economo, Austria, and Mieczyslaw Minkowski, Switzerland—who later published his considerations separately,[17] Jean Lépine France, Theodore Weissenburg, USA., Ottorino Rossi, Italy, and Bernard Brouwer, The Netherlands. They unanimously agreed on a resolution introduced by Otfried Foerster:

> Neurology represents an entirely independent specialty in medicine. Unfortunately, this fact has not been widely recognized in various countries. The First International Neurological Congress hopes that the Universities and Hospital will take active steps to further the progress of Neurology (p.15).

The impact of this congress can be seen in the fact that several independent university chairs for neurology and neurological societies have been created in its aftermath in different European countries.

Declaration of conflicting interests

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Funding

The author(s) received no financial support for the research, authorship, and/or publication of this article.

ORCID iD

Jürg Kesselring https://orcid.org/0000-0002-8645-7364

References

1. Koehler PJ and Jagella C. The correspondence between Winkler and Monakow during World War I. *Eur Neurol* 2015; 73: 66–70.
2. Kesselring J. Constantin von Monakow's formative years in Pfäfers. *J Neurol* 2000; 247: 200–205.
3. Kesselring J. One hundred years of the Swiss Archives of Neurology and Psychiatry—a treasure trove of German-speaking neurocience. *Clin Transl Neurosci* 2019; 3. DOI: 10.1177/2514183X19842538.
4. Von Monakow C. *Gehirn und Gewissen: psychobiologische Aufsätze*. Zürich: Conzett und Huber, 1950.
5. Marie P. *Formes Cliniques des Lésions des Nerfs*. Paris: Masson, 1916.
6. Boller F and Duyckaerts C.1914 to 1917: The great war years. *Arch Neurol* 1999; 56(7): 882–885.
7. Kaufmann D. "Widerstandsfähige Gehirne" und "kampfunlustige Seelen." Zur Mentalitäts- und Wissenschaftsgeschichte des I. Weltkriegs. In: Michael H (Hrsg.) *Ecce Cortex. Beiträge zur Geschichte des modernen Gehirns*. Darmstadt: Wissenschaftliche Buchgesellschaft Darmstadt, 1999, pp. 206–223.
8. Fulton JF. Arnold Klebs and Harvey Cushing at the 1st international neurological congress at Berne in 1931. *Bull Hist Med* 1940; 8(3): 332–354.
9. Kraepelin E. Über Hysterie. *Z Ges Neurol Psychiat* 1913; 18: 263–279.
10. Holdorff B. Salomon Henschen's short-lived project of an "Academia Neurologica Internationalis" (1929) for the revival of the international brain commission: documents from the Cécile and Oskar Vogt archives. *J Hist Neurosci* 2011; 20(2): 93–105.
11. Boller F, Caputi N, Romano A, et al. Transatlantic crossings: early neurological exchanges between USA and France. *Rev Neurol (Paris)* 2019; 175(5): 291–297.
12. Jagella C and Koehler PJ. The International Brain Commission (1903–1914): a Dutch and Swiss perspective (towards neurosciences beyond borders). *Clin Transl Neurosci* 2018; 2: 1–10.
13. Koehler PJ. The first International Congress of Neurology, Berne, Switzerland 1931. *World Neurol* 2018; 33: 6.

14. Louis ED. The conceptualization and organization of the First International Neurological Congress (1931): the coming of age of neurology. *Brain* 2010; 133: 2160–2166.
15. Brouwer B, et al. (eds). *Proceedings of the First International Neurological Congress*, Berne, Switzerland, 31 August–4 September, 1931. Bern: Stämpfli.
16. Casper S.Making neurology global: the First International Neurological Congress in Berne, Switzerland 1931. *J Neurol Sci* 2015; 357: e457–e512.
17. Minkowski M. Ueber die Voraussetzungen und Aufgaben einer selbständigen Neurologie—mit besonderer Berücksichtigung der Verhältnisse an Schweizerischen Universitäten. *Schweiz Med Wochenschr* 1931; 61: 842–860.