

The International Brain Commission (1903–1914): Dutch and Swiss Perspective (Towards Neurosciences Beyond Borders)

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Abstract

We wish to highlight the political impact of neuroscientific societies as forums of cross-border communication from a historical point of view. We trace the efforts of Constantin von Monakow, a founder of Swiss Neurology, and Cornelis Winkler, one of the primary figures in the early years of Dutch neurology and psychiatry, to shape their medical fields in their countries of residence. The foundation of the International Brain Commission and the failing of its continuation after World War I is reflected by the struggle to constitute the Swiss Neurological Society and the Netherlands Society of Neurology and Psychiatry and to develop their specialties along with new scientific findings in brain research. How both neuroscientists, from politically neutral countries, set different focuses concerning future developments of their societies, as well as their specialties, raises important questions about the role of neurosciences in society and were discussed by neuroscientists between the wars: Von Monakow tried to emphasize the moral meaning of knowledge about the human brain, whereas Winkler was convinced that neurology should focus on scientific issues in the traditional way, without bringing moral or societal implications to the fore. The journal *Swiss Archives of Neurology and Psychiatry*, founded by Constantin von Monakow in 1917, represents a successful attempt to establish an organ of scientific communication against the background of challenging political circumstances.

Keywords

Constantin von Monakow, Cornelis Winkler, International Brain Commission, diaschisis, politics of neurosciences, history of neurosciences, *Swiss Archives of Neurology and Psychiatry*, International Brain Research Organization

Introduction

In 1917, the *Swiss Archives of Neurology and Psychiatry (SANP)* was established, to provide a forum for ‘... discussions ... on the highest level of international scientific knowledge’ and that ‘... at the same time should be an international organ’ (translated from French by the authors; French is subsequently abbreviated as ‘F’).¹ Its founder, Constantin von Monakow (1853–1930, subsequently named as Monakow) was also one of the founders of academic neurology in Switzerland. In his introduction to the first volume of the *SANP*, cited above, he continues:

... This sort of publication should also include the cooperation of foreign scholars, at least for so long as the international difficulties and oppositions last, in some measure it should become a friendly meeting place for scientific articles and

discussions from scholars of countries that are in war, a sort of international chat room (*‘parlour’*) for neurology and psychiatry (F).

In those days, Monakow was a renowned neuroscientist, internationally acknowledged as the author of *Gehirn-pathologie* [Brain Pathology]^{2,3} and as the father of the diaschisis theory. His work on secondary degeneration as a technique to show functional connections in the nervous

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system influenced a generation of neuroscientists in Europe, as well as in Japan and the United States.^{4–10}

However, his massive second, fundamental rather than comprehensive, work *Die Lokalisation im Grosshirn* [Localization in the Cortex and Breakdown of Function through Cortical Lesions]¹¹ failed to become as influential as he has hoped within the scientific community.⁵ One of the presumed reasons was the date of its appearance, specifically the beginning of World War I (WWI), which resulted in a severe rift in international scientific communications.¹² Moreover, the war had a deep psychological impact on Monakow personally. The first international neurological congress that was planned in Bern in September 1914 had to be cancelled because of the war (it was postponed until 1931).¹³ As the world changed, Monakow's mind turned towards ethical issues, matters that he perceived from the perspectives of neuroscience. This shift can be deduced from the titles of his subsequent books, one being *Gefühl, Gesittung und Gehirn* [The Emotions, Morality and the Brain].^{14–16} His concept of ['chronogenic' localization], a term he coined and which does not equate to chronologic¹¹ emphasized the idea that lost functions could recover over time, and he extrapolated this concept to more general topics, including moral principles, politics and communication.^{6,14}

The foundation of the *SANP* was part of Monakow's wish to improve scientific exchanges, within national borders and beyond. At the same time, he argued for more interactions between the domains of neurology and psychiatry – even after they had split into two different professions and societies in Switzerland (i.e. The Swiss Neurological Society in 1908, with Monakow as first president, and the Swiss Psychiatric Society in 1895, respectively).

Monakow did not hesitate to write letters, and he conducted a lively correspondence and warm friendship with neuroscientists all over the world, including with Dutch physician Cornelis Winkler (1855–1941). The content of these letters included personal and scientific concerns, and especially during WWI political opinions. They reveal how neuroscientists *avant la lettre* tried to cope with changing international relationships.¹²

In the years between 1903, the year of its founding by the International Association of Academies, and 1914 with the outbreak of WWI, the International Brain Commission (IBC) represented an important forum for clinical as well as basic neuroscientists, although the terms 'neuroscientist' and 'neuroscience' were themselves not yet born. Richter stated that

...the main achievement of the Brain Commission was to lay down binding standards...[to provide] a breadth of theoretical scope, in which the results of brain research should be interpreted, and makes possible the planning and methodological accuracy needed for investigations in this difficult field.¹⁷

In this article, we wish to bring forth the roles of these two close colleagues, Constantin von Monakow and Cornelis Winkler, within the IBC, with particular emphasis on struggle to establish neurology as an important discipline within both national and international frameworks (Figure 1). Further, we wish to provide support for the hypothesis that the foundation of the *SANP* was an attempt to establish an organ for greater scientific communication against a background of challenging political circumstances.

Biographical sketches

Cornelis Winkler (1855–1941)

During his medical studies in Utrecht, Winkler was influenced by ophthalmologist and physiologist Franciscus Cornelis Donders (1818–1889), one of the first authoritative physicians in the Netherlands to adhere to the scientific method in medicine. Admirer of the ideas (brain psychiatry) of Carl Wernicke and Theodor Meynert, whom he visited during his Austro-German study tour (during which he also met Wagner von Jauregg, Edinger, Weigert, Hitzig and Von Gudden), Winkler became Reader of Psychiatry (1885) and subsequently professor of Psychiatry and Neurology (1893) in Utrecht.

For years, Winkler fought for the inclusion of psychiatry and neurology in the *series lectionum* of the medical faculties. Following an interlude, starting in 1896, as chair of Neurology and Psychiatry in Amsterdam, where he cooperated with electrophysiologist Wertheim Salomonson, with whom he organized the International Congress for Neurology, Psychiatry and Mental Care in 1907, Winkler returned to Utrecht in 1915, following the death of Karl Heilbronner. In the meantime, he had been one of the founders of the Society of Amsterdam Neurologists in 1909, the same year in which the Central Institute for Brain Research in Amsterdam was opened, for which he had written an important report in cooperation with anatomist Louis Bolk.

Winkler had always been interested in international intellectual cooperation, co-organizing the Amsterdam congress (*see above*), where he met Monakow, Arthur van Gehuchten, Arnold Pick, Gottfried Ewald and Hugo Liepmann, and having worked for the international co-production of an *Atlas of the Human Brain* (commissioned by the IBC, *see below*). From 1920–1928, in cooperation with his compatriot Theodoor Joekes who lived in London, a series of lectures was organized by the Interchange Commission of the Royal Academy. Winkler and his Dutch colleagues consequently had occasions to discuss subjects of mutual interest with Frederick Mott, Grafton Elliott Smith, Henry Head, Samuel A Kinnier Wilson, and others.

Although leading clinical departments of neuropsychiatry, Winkler's main scientific projects were in the field of neuroanatomy. Notably, he applied Gudden's techniques, based on atrophy, to study the course of nerves in the central nervous system (*see below*). Further, his five-volume

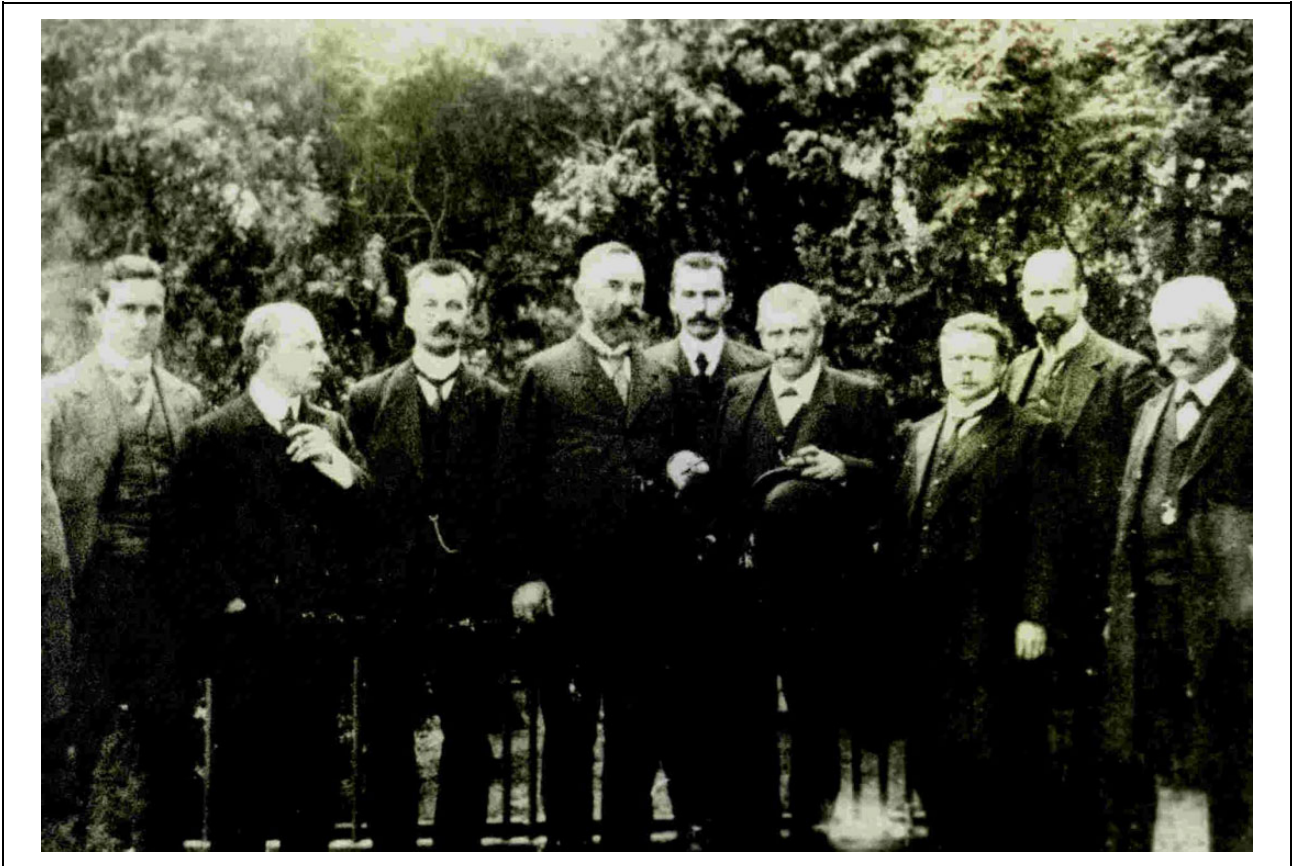


Figure 1. Von Monakow (4th from the left) and Winkler (4th from the right) with some of their pupils and colleagues (photograph made in the Netherlands, September 1911). Private collection Dr. P J Koehler.

Handbook of Neurology was not a really clinical, but rather an anatomy book. And in cooperation with surgeon Johan Anton Guldenarm, Winkler started neurosurgery in Utrecht in the 1880s, publishing on that subject too. In 1882, Winkler constructed a geometrical system to show how gyri and sulci could be localized in relation to skull landmarks, this being a year before Moses Allen Starr published related studies. Winkler's method of 'triangulation' can be found in Dutch textbooks up to the 1970s.¹⁸ Additionally, several of his papers dealt with aphasia and functional localization, further revealing the scope of his scientific pursuits.

Constantin von Monakow (1853–1930)

In the history of brain research, Constantin von Monakow's neuroanatomical work on the visual pathways, thalamocortical and pallidothalamic connections, rubrospinal tract ('Monakow'sches Bündel'), the mesencephalic tegmentum and the geniculate bodies has been recognized as fundamental for understanding potential interactions between cortical and subcortical regions. In his influential paper '*Haubenregion, Seh Hügel und Regio subthalamica*' [Tegmentum, lateral geniculate nucleus and subthalamic region],¹⁹ he disproved the opinion, prevalent at the time, that the pyramidal tract forms synapses in the striate body.

His new compartmentalization of the thalamus resulted from the description of the ascending sensory pathways and showed the functional connectivity of cerebral regions that until then were assumed to be separate.⁴ The studies of Walter Rudolf Hess (1881–1973), who was awarded the Nobel Prize in 1949, had been conducted in this tradition.

Interestingly, Monakow's breakthrough as a scientist took place, when he was working as a resident in psychiatry in a Swiss mountain village, from 1878 to 1885.⁶ In his 1882 study, he was able to prove the secondary degeneration of the *corpus geniculatum laterale* after extirpation of the parietal and occipital cortex of two newborn rabbits, studies partly based on earlier research by Hermann Munk, Bernhard von Gudden and August Forel.^{20,21}

Konrad Akert, founder of the first Brain Research Institute in Zurich independent of clinical neurology (1962), and pupil of Walter Rudolf Hess, highlighted this successful experiment as 'major coup', because the discovery of the *corpus geniculatum laterale* as 'relay station' completed the first good description of the visual pathways in their entirety.⁴

Monakow's professional career has been divided into three periods. It began with experimental brain anatomy, shifted to localization of brain functions around 1900, and focused on psychobiological and moral implications of

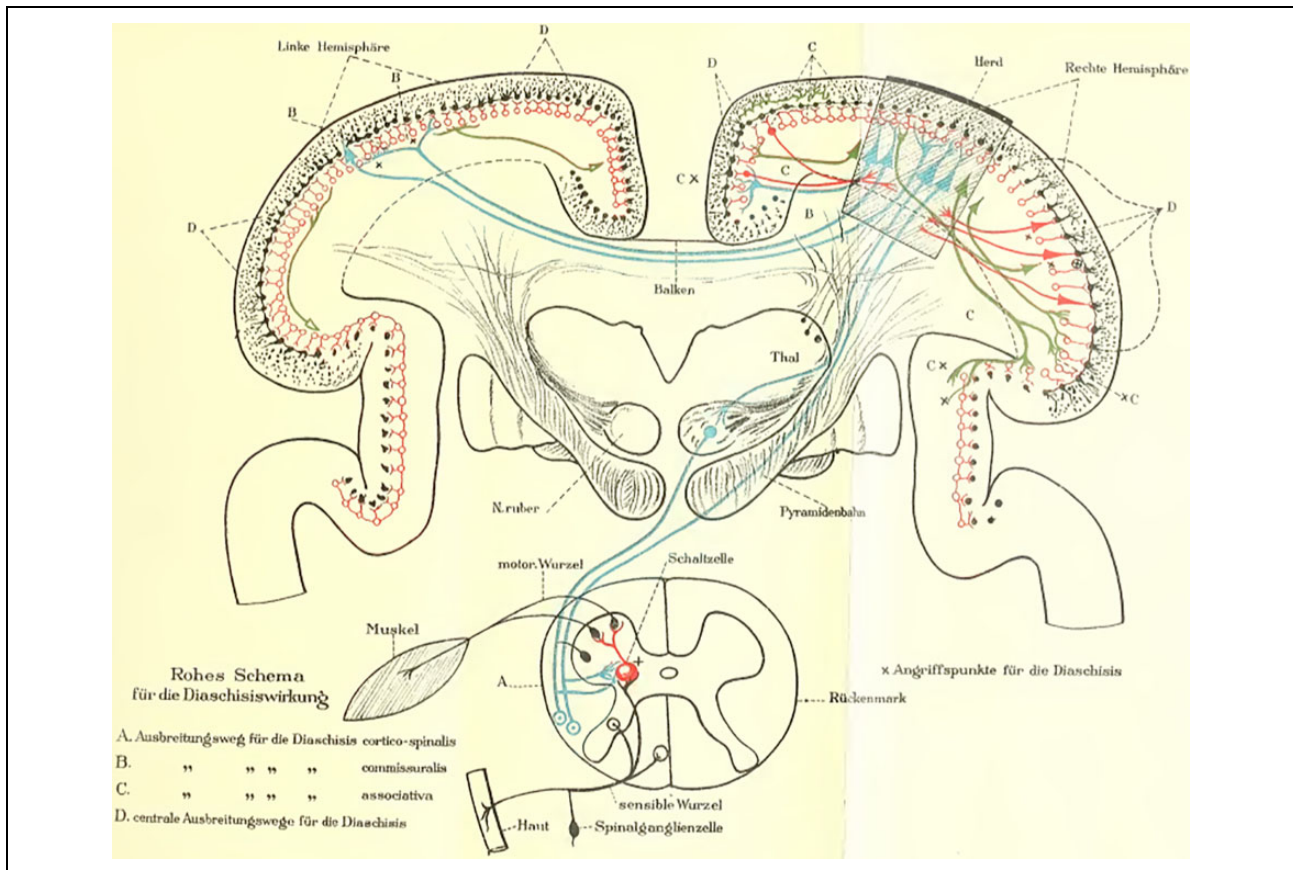


Figure 2. Diaschisis scheme as it was printed in Monakow's *Die Lokalisation im Grosshirn*.¹¹

neurosciences after 1914.²² Monakow's deeper interest in aphasiology started after 1900 and was associated with his diaschisis concept (see below). He delineated the *fasciculus arcuatus* as fibre tract between the language zones of Broca and Wernicke, possibly based on clinical observations, while he visited his colleague and friend Jules Dejerine in Paris.²³

Apart from his seminal papers about brain anatomy, his main achievements as researcher were the concepts of chronogenic localization and diaschisis, laid down in the second edition of *Gehirnpathologie* [Brain Pathology]³ and refined in 1914 in *Die Lokalisation im Grosshirn* [Localization in the Cortex].^{5,6,24} Diaschisis (splitting-off) was described as 'injury-induced drop in activity in functionally connected brain areas',⁵ which means that a loss of a certain function might eventually recover, if that function is only temporarily disrupted by damage to other structures near to or associated with the directly damaged part of the brain (Figure 2). Stemming from what he observed with stroke patients in his ward and in an outpatient clinic, diaschisis provided a model that helped researchers and clinicians better understand functional neuroanatomy and neurophysiology, and especially secondary lesion effects based on the connections between different regions of the cortex and even subcortical parts of the brain. Akert

discussed diaschisis as counterpart of the neuron theory, in which, in addition to lesioned neurons, also neurons superordinate or downstream to the injured neurons are blocked. The blockage originates from loosened contact at the transition from one neuron to the next (synapse). The phenotype thus does not arise from an individual neuron but from a 'string of neurons'.⁴

Monakow's diaschisis might have influenced Charles Scott Sherrington's (1857–1952) model of spinal 'shock' in his reflections about 'the integrative action of the nervous system' from 1906.^{4,6,25} The reception of diaschisis by his contemporaries, however, was mixed. After the Amsterdam congress in 1907, Winkler wrote to Monakow that the majority of his Dutch colleagues did 'not quite understand, and neither did I'.^{6,26,27} Interestingly, Sigmund Freud explained the variability and volatility of symptoms, for example, in aphasia not with (partial) splitting-off of function within a network, but with graded levels of reduced neuronal excitability, implicating recovery if neurons are only partly injured.²⁸ Currently, the concept of diaschisis, at least in more modern form, is intriguing brain researchers and is relevant to therapeutic options after stroke or brain injury.²⁹

Although co-founder of neurology in Switzerland with the first chair in 'hirnanatomische Fächer und

Nervenpoliklinik [the specialties of Brain Anatomy and Neurological Outpatient Clinic] (1894), Monakow continued to struggle for many years to establish an accredited brain institute in Zurich – one that would unite clinical neurology with more basic brain research. Despite his international reputation, it was difficult for him to convince the Medical Faculty that neurology and brain research were not subspecialties of internal medicine, anatomy or pathology. The Cantonal Institute for Brain Anatomy was not granted until 1913, and at that time it was associated with the university hospital's first neurological outpatient clinic.

In various personal accounts, Monakow himself suggested a shift of his professional interests caused by WWI – one that finally led to the so-called Zurich Psychobiological School.¹² It is not hard to follow how he connected his dynamic views of brain function (diaschisis theory) with his hope for social recovery.^{5,6,14} In particular, he emphasized a scientific approach to psychological phenomena, testified in his last book, a tome about integration and disintegration of function in neurology and psychiatry from a biological point of view.³⁰

Constantin von Monakow had emigrated from Russia with his father and brother first to Germany, then to Switzerland, where he studied medicine against his father's wishes at Zurich University. It is noteworthy that he tried to link his own emotions and traumatic childhood experiences with the loss of his mother, sister and home ('separation is the most cruel experience!') to his interest in what might be regarded as the coping strategies of the lesioned central nervous system and the moral recovery of a fractured society.²⁴

The founding of the Netherlands and Swiss Society of Neurology and the brain institutes

In 1871, Dutch psychiatrists (in fact asylum physicians) convened in Utrecht and founded the Netherlands Society of Psychiatry (NSP). Their aim was to promote the interpersonal contacts, better diffusion of the findings of Dutch psychiatric researchers and the protection of rights and interests of psychiatrists and their patients. The new society was to be a formal 'learned society' featuring free meetings of its members.

During subsequent years, the more somatically, meaning neurologically-inclined members, began to express dissatisfaction with the predominant psychiatric and psychopathologic subjects discussed at the annual meetings. In 1895, Winkler, who was the president of the NSP, appointed a committee to study the desirability of changing the name of the society to the 'Netherlands Society of Psychiatry and Neurology' (NSPN), in particular because there were rumours that a separate society of neurology was going to be established. Such a development would

not be advantageous for psychiatry, and it was generally felt that psychiatry and neurology ought to remain together, a tendency that could be observed in the German speaking countries.³¹ The new name became a fact in 1897, and members of honour were nominated including: Liébault, Marie, Ziehen, Kraepelin, Anton, Lombroso, Gowers, Bekhterew and Forel. The names were published in the society's journal, which would continue under the name *Psychiatric and Neurologic Papers* [original Dutch name: *Psychiatrische en Neurologisch Bladen*]. Despite several proposals during the subsequent years, it lasted until 1974, when the NSPN was split into the Netherlands Society of Neurology and the Netherlands Society of Psychiatry.³²

In contrast to this development, the foundation of the Swiss Neurological Society in 1908 resulted from the academic separation of neurology from psychiatry and internal medicine.^{33,34} Deep controversies concerning the Freudian school as an academic model, opposition to neurology as independent specialty from internal medicine in Zurich, and Monakow's headstrong personality might have contributed to this separation.

Before 1908, the relationship of psychiatry and neurology in Switzerland was close and based on German physician Wilhelm Griesinger's doctrine of 1845 that diseases of the mind are, in fact, diseases of the brain. After its introduction in 1860, Griesinger taught clinical psychiatry in Zurich and was one of the leading minds behind the project's first psychiatric clinic in Zurich, the Burghölzli. However, it was Bernhard von Gudden, who became the first clinical director of the Burghölzli. Gudden scientifically influenced both Monakow and the Swiss psychiatrist and the subsequent director of the Burghölzli, August Forel. Monakow and Gudden independently used a new microtome, which was designed by Gudden, for their pioneering neuroanatomical studies.

As a student, Monakow visited Gudden in Munich in October 1876, but in contrast to Forel he failed to become a resident in Gudden's hospital. Having returned to Switzerland, he displayed exceptional brain sections using Gudden's microtome and refined the scientific method of secondary degeneration (see above). Monakow worked for several years as a resident in psychiatry, partly under Eduard Hitzig's direction and cultivated a correspondence with Forel ('My dear director!') and Eugen Bleuler.

Later, the so-called Monakow circle ('*Monakow'sches Kränzchen*') was a forum for neuroscientists like Forel, Bleuler and W. R. Hess, who ventured beyond the traditional boundaries of neurology and psychiatry. In 1904, the Monakow circle merged into '*psychiatrisch-neurologischer Verein*' [psychiatric-neurologic club]. A dispute between Monakow and Forel about psychoanalysis in 1908 signified the start of its separation into the two different societies.⁶

Monakow regretted this development and tried to keep in contact with Forel. But like Winkler, he insisted on a scientific approach to psychiatry. Interestingly, in 1923, Bleuler wrote on the occasion of Monakow's 70th birthday that, from the viewpoint of psychiatrists, he was one of them.³⁵

The foundation of the *SANP* in 1917, as common organ of both societies, was one of Monakow's strongest requests. He insisted that

... this endeavor of course should serve neurology as well as psychiatry and I am in contact with Professor Bleuler, who currently did not yet decide to join (F).¹

Monakow emphasized the 'advantages' of this project for both societies, and he acknowledged and addressed the war

... that arrived with all its cumbersome consequences. The breakdown of work in all domains sharpens the mutual animosities between the nations and even extends to scientific work in countries that are in war as well as in those that are neutral (F).¹

The International Brain Commission: The role of Monakow and Winkler

In 1899, leading European academies and scientific societies, in cooperation with the Washington (DC) Academy, joined efforts and founded the International Association of Academies. When WWI broke out in 1914, 24 academies and societies had become members. Within this larger body, more extensive scientific undertakings had become possible and international cooperation could be improved. Particularly in brain research, these joint efforts supported and enabled the time-consuming investigations, such as cutting and staining thousands of brain sections for human and comparative anatomy. This was comparable to what the establishment of a network of astronomical observatories did for the study of astronomy. In his *Recollections*, Winkler wrote that

... they hoped, by influence from the academies, to convince the various governments of the importance of joint international work in this area and to motivate them to found central institutes for brain research.³⁶

As mentioned above, the IBC, the official name of which was Central Commission for Brain Research, was founded in London in 1903. One of its aims was to create an international system of national research institutes. The first nine acknowledged so-called 'interacademic brain' institutes were in Madrid (Ramón y Cajal, 1904), Leipzig (Paul Flechsig, 1904), Frankfurt am Main (Ludwig Edinger, 1904), Vienna (Heinrich Obersteiner, 1906), Zurich (Von Monakow, 1906), Philadelphia (Henry H. Donaldson,

1906), St. Petersburg (Vladimir M. Bekhterev, 1908), Amsterdam (Cornelius U. Ariëns Kappers, 1909), and Budapest (Károly Schaffer, 1912). Not every country was endowed with this honour and it was prestigious to be elected head of these institutes. For Monakow, it was the fulfilment of his long struggle to establish his independent institute for Brain Research and Neurology at Zurich University. In his autobiography he had reflected, quite ironically, about his dialogue with Archduke Rainier, during a meeting of the IBC in 1906 in Vienna:

... 'Are there many academies in Switzerland?' 'I'm afraid, we don't own a single one.' 'But why are you joining this festive occasion?' 'Because I am member of the Brain Commission, a scientific branch of the international academies' (translation from German by the authors subsequently abbreviated as 'G').²⁴

Wilhelm His, a Swiss anatomist who taught in Leipzig, was one of the founding fathers and became the first president of the IBC. It was 'not accidental', that the impulse to found neuroscientific organizations came from the German side, because a sharp distinction between psychiatry and neurology was questioned in Germany (and this tradition lived on in the German *Nervenarzt* combining both fields), in contrast to countries like France or England.¹⁷ Monakow commented on the 'predominance' of German neuroscientists,³⁷ and also that from the IBC's beginning there had been 'certain latent rivalries' between French and English members. In his autobiography *Vita mea*, Monakow even dedicated one chapter to the 'History and aims of the Brain Commission'. The 'most important task', announced by the association of the international academies, he wrote, would be the 'mutual scientific assistance and cooperation and if possible methodic organization of brain research'. He hoped that the 'mischief of brain research' with 'lack of any organization, chaos concerning research and publications' (G) would be reduced.^{24,37}

The IBC had seven special committees, such as macroscopic morphology and phylogenetic research. Until 1914, over 50 well-known neuroscientists, including physiologists, had become members (three of whom became Nobel Laureates: Golgi, Cajal and Sherrington).¹⁷

When the decision to build a Brain Institute in Amsterdam had been taken, Winkler became the IBC's Dutch representative and 'immediately went to Bologna, where the Brain Commission was meeting'.³⁶ Ariëns Kappers, who trained with Edinger in Frankfurt, became the new Brain Institute's director, and Christiaan Theodoor van Valkenburg, who had worked with Monakow (he was nominated to become Monakow's successor in the 1920s, but was surpassed by Mieczysław Minkowski), became 'subdirector'.

In the correspondence between Winkler and Monakow, kept in Amsterdam and Zürich and comprising 207 letters, the IBC was often a subject of discussion. Winkler wrote to Monakow that subsequent to the planned congress in Bern

in September 1914 he, in his function as member of the IBC, intended to visit laboratories in Copenhagen, Kiel and Hamburg to see whether they also could become ‘interacademic brain’ institutes. He also hoped to be able to get Dutch grants for the International Brain Atlas project (Winkler to Von Monakow, 26th July 1914). This ambitious project was abandoned, however, because of the war. Nevertheless, the microscopic atlas on the medulla oblongata, constructed by Monakow and his Japanese co-worker Genosuke Fuse, was published in 1916.³⁸

In a manuscript from 1929, Monakow wrote that ‘since 1914 the relationship between members of the Brain Commission that never had been very close obviously became increasingly lax’ (G).³⁷

Although the international cooperation had collapsed after the outbreak of WWI, international discussions on nomenclature continued. In 1918, Winkler wrote that some neuroanatomical structures were to be renamed (e.g. the *posterior longitudinal fascicle* into *dorsal l. f.*).

In his words:

In the Anatomy Commission of the Academy members (the majority) wished to continue with the previous name *posterior*. I would be inclined to follow Edinger’s wish to name it *dorsalis* with *posterior* between brackets (G) (Winkler to Monakow, 2nd April 1918).

After WWI, in January 1919, Winkler asked: ‘Wouldn’t it be time that you, Ramón y Cajal and me attempt to bring together the Brain Commission again?’ (G) (Winkler to Von Monakow, 10th January 1919).

The subject lapsed until 1927, when Monakow in his correspondence with Winkler expressed his regret that (Frederic) ‘Mott cannot be moved to install this again’. Also in 1927, Winkler asked two of his Dutch colleagues in Amsterdam, Ariëns Kappers (Director of the Amsterdam Brain Institute), and Bernard Brouwer, Professor of Neurology, to use their positions to help resuscitate the IBC (Winkler to Von Monakow, 19th April 1927).

In 1929, the Swedish neurologist Salomon Henschen (1847–1930) initiated the *Academia Neurologica Internationalis* as a ‘revival’ of the IBC. The idea for this project can be tracked back to 1926.^{39,42}

Additionally in 1929, Winkler wrote to Monakow that he might expect a letter from Ariëns Kappers and Brouwer to inform him that

... we reject Henschen’s international neurologists society as reconstruction of the Brain Commission, although we do not oppose a similar society.

They suggested founding a new society, starting with members of the old IBC (Winkler to Von Monakow, 24th March 1929). A letter from Ariëns Kappers and Brouwer dated 4 April 1929, is preserved in the Archive for the

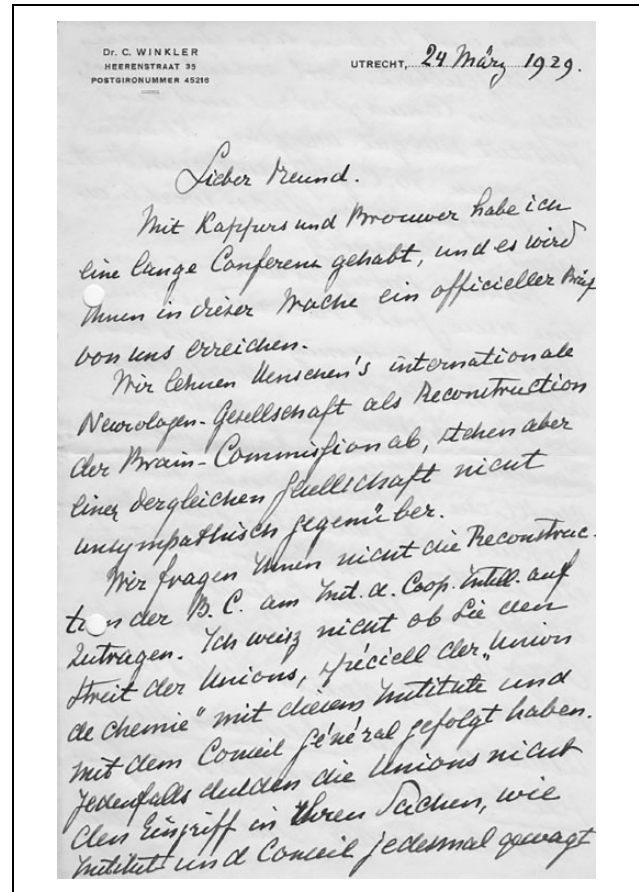


Figure 3. From the correspondence between Monakow and Winkler: letter by Winkler on 24th March 1929, discussing the reconstruction of the Brain Commission.

History of Medicine in Zürich.⁴³ In it, Monakow’s Dutch colleagues pointed out (in German) that they

1. ... don’t believe that an international neurological society (...) will be able to replace the ‘former Brain Commission’
2. (...) are of the opinion that a new Br. C. under the lead of the ‘international institute for intellectual collaboration’ will fail our objective (...)
3. (...) believe that a successor to the old Brain Commission (...) will be possible (G).

Finally they recommended that the former members of the old IBC, who are still alive, like

‘Henschen, Monakow, Flechsig, Marie, Sherrington, Head, Pavlov, Minor, Ramón Y Cajal, Donaldson, Winkler, and Ariëns Kappers’ could initiate a ‘reconstruction’. Such a Brain Commission could, however, coexist with an international neurological society, perhaps even cooperation could be conceivable, although one should have in mind that other big nations like Australia, South Africa, China, etc. would be interested to join (G).⁴⁰

The Dutch neurologists apparently thought that ‘an academy could only be created as a national institution

by a state', and that it not become a 'supranational organization'. As for Monakow, he 'was convinced that the Brain Commission should remain under the umbrella of the League of Nations (Völkerbund) and cooperate with the Institut International de Coopération Intellectuelle in Paris'.³⁹

In June 1929, Winkler stated that Ariëns Kappers and Brouwer do not see any advantage in resurrecting the IBC. He added that, in any case, the proposed brain atlas should be finished (Winkler to Von Monakow, 30th June 1929). Later that year, Winkler referred to the preparation of the International Neurological Congress that finally took place in 1931, in Bern

The reconstruction of the Brain Commission seems to have been subject of discussion during the meeting of neurologists, who have prepared the new international Congress in Basel (Winkler to Von Monakow, 7th October 1929).

Winkler had been urged to write to Pierre Marie, and Monakow to write to Sherrington, asking them to join and, if they do, to write to other prior members of the IBC. In March 1930, few months before Monakow died, Winkler suggested that 'it would probably not work out with the Brain Commission' (Winkler to Von Monakow, 24th March 1929) (Figure 3). He was right. However, the IBC had never been formally dissolved.

Conclusion

Constantin von Monakow's appeal to unite Swiss Neurology and Psychiatry in a journal that was open for scientists from other countries, printed as preface for the first volume of the *SANP* in 1917, was an enormous political statement. He insisted that what we now call the neurosciences had to be independent from national interests – an opinion that had led to his engagement with the IBC.

He continued '... that, after the war, it will be the business of us neutral [scientists] to renew the scientific ties between the nations' (F).¹ Calling himself 'strictly neutral',⁴¹ Monakow emphasized that 'the central position of Switzerland with its three languages (...) should indicate' its future role concerning 'reconciliation in the domain of science' (F).¹

It was not accidental, that Winkler and Monakow, both citizens from neutral countries were unhesitant to reconstitute the idea of an international organization in the tradition of the IBC after WWI. Although scientific and personal life was diminished in Europe, including in neutral Switzerland and the Netherlands, they felt no restraints when it came to communicating ideas and future plans. Interestingly, the idea of an International Neurological Society, however, was withdrawn by Monakow and Winkler, because they felt that 'national rivalries [will] dominate and personal relations would be cultivated' and that such an organization 'would not be an appropriate forum for objective scientific

cooperation between brain research institutes, their directors, and colleagues' (Monakow to Winkler, 19th May 1929; translated from German by Holdorff³⁹).

For Monakow the founding of the *SANP* as well as that of the IBC had been based on the belief that neuroscientists have the potential to unite different interests in science beyond just national interests. Although this belief was shared by Winkler, Monakow also thought that neuroscientists had an intrinsic obligation to concern themselves more with general topics affecting individuals and society.

This is possibly the reason why he explicitly mentioned that the war impaired 'culture and sciences' (G)¹ and concluded with the 'ardent' appeal that

... our new *Archives* will be a testimonial, from the scientific point of view, of our national solidarity and will provide, in our country and abroad, the great cultural mission we wish for (F).¹

It is possible that Monakow aimed at a central role for Switzerland within a post-war community of scientists. He definitely tried to establish a new international organization of neuroscientists within a greater frame that also included political concerns, like the League of Nations with seat in Geneva and the French International Institute of Intellectual Cooperation (*l'Institut International de Coopération Intellectuelle*). The latter had been initiated by a commission of the same title, and it was aimed at the reinforcement of cross-border cooperation in the fields of culture, arts and science. Its first president was philosopher and Nobel Prize laureate Henri Bergson, whose ideas about the *élan vital* influenced Monakow's late psychobiological work in decisive ways.⁶ Henschen was upset about this plan (of a scientific, cultural and moral mission) and thought that Monakow had influenced the Dutchmen unfavourably, because he was sure that such an organization would certainly be rejected by the Germans.³⁹

Monakow's wish, which probably contributed in the end to the failing of the project, can be seen as being in line with his shift towards ethical issues that he tried to answer from the point of view of neurosciences (which for him included neurology and psychiatry) – this being at a time when international politics struggled to reestablish themselves.^{12,30}

The International Brain Research Organisation (IBRO) had been founded in 1961 as successor of the IBC.

Monakow was not far off with his wish of a new IBC, as IBRO's mission is to (i) develop, support, coordinate and promote scientific research in all fields concerning the brain; (ii) promote international collaboration and interchange of scientific information on brain research throughout the world; and (iii) provide for and assist in education and dissemination of information relating to brain research.

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