

The Correspondence between Winkler and Monakow During World War I

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History of medicine · Winkler · Monakow · World War I · Brain Committee · Diaschisis

Abstract

The correspondence (1907–1930) between two leading European neurologists, Cornelis Winkler (1855–1941) and Constantin von Monakow (1853–1930), has been preserved in Amsterdam and Zurich. For this paper, letters exchanged during World War I were studied. Professional as well as personal issues were discussed. An international neurology meeting in Berne in September 1914 had to be cancelled due to the war. They hoped that (neuro)scientists would remain politically neutral, continue scientific cooperation, and even be able to influence the course of the war. Winkler and Monakow tried to continue their work on the International Brain Atlas. Although living in neutral countries (The Netherlands and Switzerland), they observed that their practice and scientific work suffered from war conditions. While Winkler continued his activities as a neurologist, Monakow, affected emotionally, experienced a change in scientific interest toward psychoneurology. He used his diaschisis concept, originally an explanation for transient phenomena in stroke, as a metaphor for the social and cultural effects of the war. He directly related cultural development and brain science, bringing in his own emotions, which resulted in the first of several publications on the relations between biology, brain science, and culture.

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The Dutch neurologist Cornelis Winkler (1855–1941; fig. 1a) and his Swiss colleague Constantin von Monakow (1853–1930; fig. 1b) were leading European neurologists around the turn of the 19th to the 20th century [1, 2]. In 1907, Winkler organized the international congress for neurology, psychiatry, and mental care in Amsterdam. Many well-known neurologists met, including Arthur van Gehuchten, Arnold Pick, Hugo Liepmann, and Constantin von Monakow. Winkler and Monakow became friends and started a correspondence that ended with Monakow's death. Part of the correspondence, residing in Zurich, has been described previously [3, 4]. Recently, a more substantial number of letters was found in Amsterdam. In these letters, Winkler and Monakow exchanged scientific as well as private issues. Although it may be possible that we do not possess all letters from their correspondence, there was a remarkable increase in the number of letters during World War I (WWI), partly due to less frequent personal meetings. Moreover, the themes of the contents, moved from scientific and practical (founding neurology at universities, exchange of views with psychiatry, reception of the work of Freud, localization debate), to political and societal issues related to the war. Being interested in how these European brain scientists, working in neutral countries, reacted to the WWI, we analyzed their correspondence between the years 1914 and 1918.

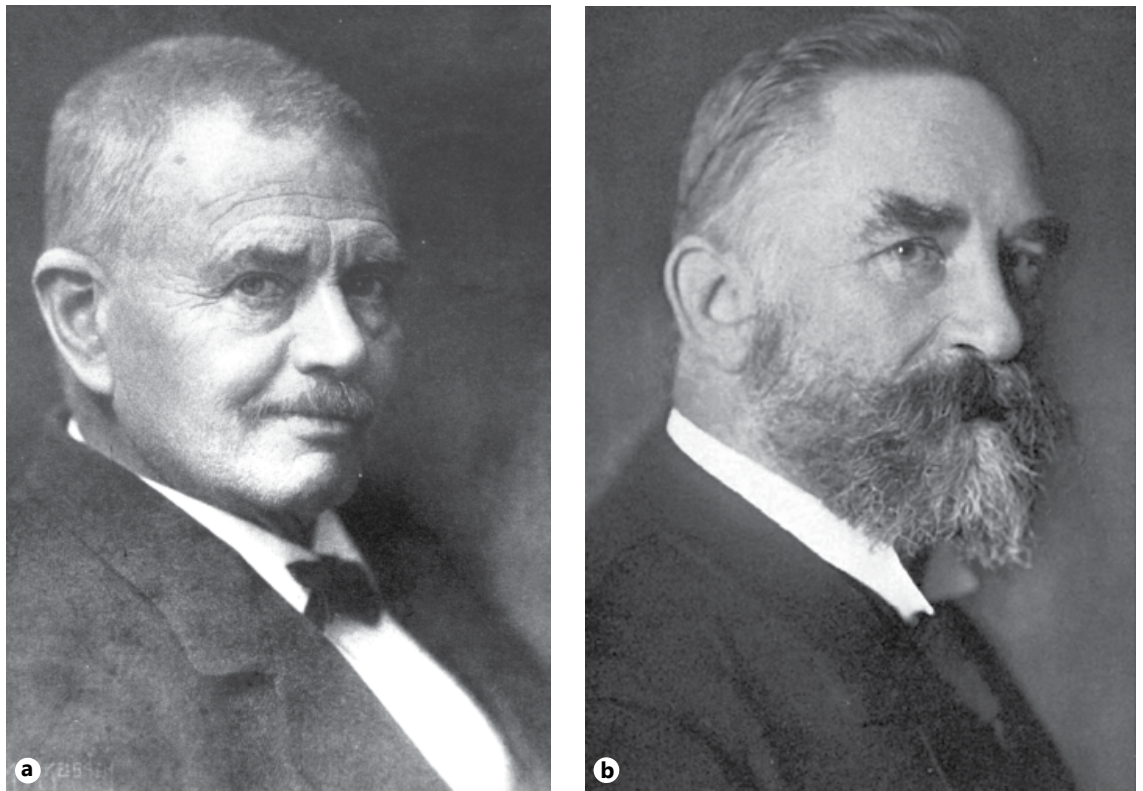


Fig. 1. **a** Cornelis Winkler (1855–1941) and **b** his Swiss colleague Constantin von Monakow (1853–1930). Personal collection of Dr. Koehler.

Methods

We studied the correspondence between Winkler and Monakow that is archived at the Medizinhistorisches Institut, Zurich and the Archives of the *Nederlands Tijdschrift voor Geneeskunde*, Amsterdam. The total number of letters is 207 (148 by Winkler and 59 by Monakow). During the period 1914–18, 38 letters were exchanged (31 by Winkler and 7 by Monakow).

Results and Discussion

A Postponed International Neurology Meeting

In July 1914, Winkler reserved a room in a hotel in Zurich to meet Monakow, preceding their participation in the international neurology meeting that was to be organized in September 1914 in Berne. Being a member of the International Brain Commission of the International Association of Academies [5], he intended to visit several European neuroanatomical laboratories and make preparations for an International Brain Atlas. On August 1st, 1914, Winkler wrote to Monakow: ‘I think that if the international relationships will not relax

soon, I will not be able to come to Switzerland’. In a *post scriptum* to the letter he noted, ‘I believe this August 1st 1914 will become a historical day’. On the same day, Monakow wrote to him ‘The war, the dreaded European war is imminent and Switzerland too, is preparing to send troops to the threatened borders’. He realized that

all colleagues on the continent are engaged in obvious national and economic tasks and have other thoughts than discussing scientific questions; and that will probably mean – although we have not yet decided definitely – that the Berne congress that has been prepared so well, will probably not take place.

Indeed the Berne Congress had to be cancelled. Would the two have realized that it would take another 17 years before a new opportunity would occur? Ultimately, following some attempts to restore the Brain Commission a.o. by Winkler in 1919 (‘Wouldn’t it be the right time that you, Ramon y Cajal and I made a new attempt to bring together the Brain Committee...?’; January 10th) and by Salomon Henschen in the 1920s [6], it was not until 1931 that an International Neurology Congress was organized in Berne [7–9].

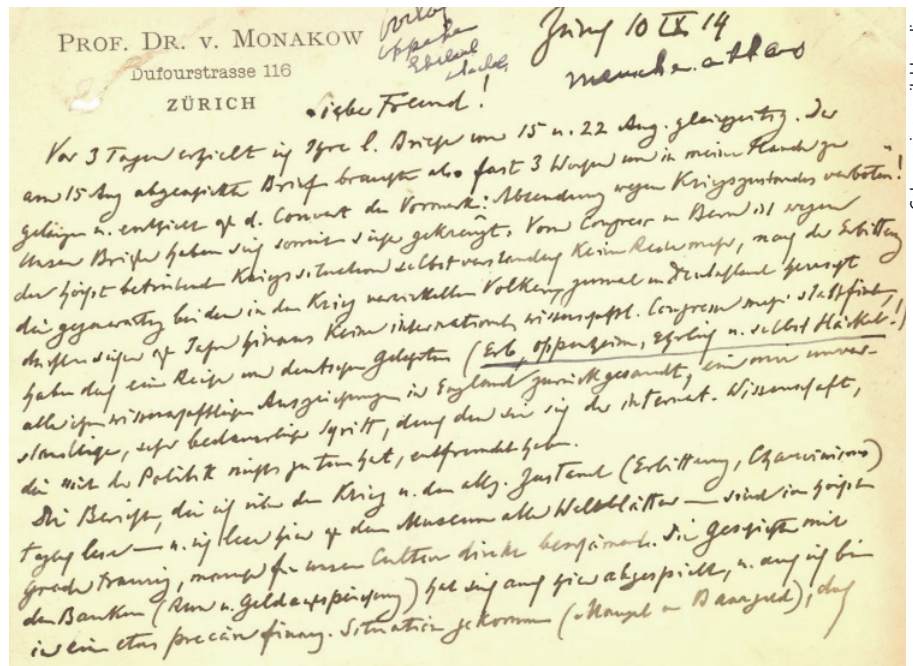


Fig. 2. (Part of) letter by Monakow of September 10th 1914. Archives of the Nederlands Tijdschrift voor Geneeskunde, Amsterdam.

The Scientific World Responds to the War

On September 10th, Monakow commented on the ‘Call upon the Cultural World’, a proclamation by 93 German scientists, artists, and writers declaring support to the German military actions.

A number of German scientists ([Wilhelm Heinrich] Erb, [Hermann] Oppenheim, [Paul] Ehrlich and even [Ernst] Hückel!) have sent back all their scientific decorations once received from England, a for me injudicious, unfortunate step, by which they became estranged to international science that has nothing to do with politics (fig. 2).

And in the same letter, Monakow wrote ‘The communications on the war and the general situation (embitterment, chauvinism) I read daily... are sad to the highest degree, many directly shameful for our culture’. More than in Winkler’s case, the situation affected Monakow personally.

My interest in neurology has now changed for the benefit of history and psychological studies. I suffer, like you, morally in a high degree, under the cruel and needless shedding of blood in the various theatres of war.

Monakow tried to interpret the phenomena of violence that turn up during the war in a biologic-psychiatric way (‘meaningless pathological rage of the uncultured’) in an attempt to classify them.

They were concerned about their colleagues, for instance the Belgian neurologist Arthur van Gehuchten, professor of neurology in Louvain.

Fortunately it has appeared that the damage to art and history works in Louvain is not as extensive as was assumed, but it should still be considerable. The university and library went up in flames! How would it be with V. Gehuchten? Is he still alive? (Monakow, September 10th, 1914).

One month later, Winkler wrote about the bombing of Antwerp and the stream of refugees to Holland:

Imagine 400,000 people standing for our southern border one morning... You know next to us... [at the time Winkler lives at the Herengracht in Amsterdam]. We carried inside beds and 75 lucky ones, diseased and pregnant, are sleeping there. Why they fled – they don’t know. One follows the other... (Winkler, October 12th).

A few weeks later Winkler wrote (October 29th): ‘Van Gehuchten... stayed in his lunatic asylum up to the last moment... Went to England. Shuttleworth took him to Mott, where he will take a position in the Country Asylum’. Winkler tried helping to reunite the Van Gehuchten family. It was not known where his children were:

I advertise in all newspapers, also know that on the first day after the fall of Antwerp, the children have placed announcements in the N Rott Courant, but I can’t find them....

On December 19th, Winkler reported about the tragic death of Van Gehuchten following an appendectomy. ‘He had talked with his wife cheerfully, suddenly he died, probably embolus’.

In the meantime, in October 1914, Monakow expressed further feelings about the war. 'I follow the war events with great attentiveness and objectivity, and I manage to remain neutral. Although the Germans are dear to me, I shudder from their power'. And although he remained neutral in a political sense, he did not as neuroscientist. He foresaw a new ethics, based on science, brain science in particular, in a way that insights may contribute to improvements of society. In November of that year, Monakow opined that

every warring power will need years before it will be able to restore its moral and physical strengths and will be able to reflect on itself. Belgium will, at least partially be saved and Holland will not be affected.

Then he continues, 'we neutral countries are... now in the first place obliged to continue to take care of values of humanity and culture and keep upright the international scientific relationships with all energy'.

On January 4th, 1915, Winkler referred to a Dutch proclamation to scholars, which he sent to Monakow confidentially. 'Although I do not agree with all these words – I would rather see actions, preferably an intervention of the neutral states – ...the economic ruin of Europe may perhaps be averted' and in November 1916, he feared that his colleague at the chair of pharmacology (and physiology) at University of Utrecht, Rudolf Magnus, who had been working there since 1908 and now left for Berlin, would be lost for Dutch neuroscience. For a while, Winkler was intermediary in the correspondence between Sherrington (in England) and Magnus, 'but that diminishes gradually'. Winkler also noticed that science had become more chauvinistic. 'My English and French friends now only react with blunt refusal to renewals of international scientific relations' (December 23rd, 1916).

Brain Committee and Brain Atlas

In September 1914, Monakow brought up the International Brain Atlas, to which his group would contribute. 'Fuse [one of his Japanese assistants] has almost finished the three oblongata plates; his drawings are masterpieces....' He hoped that they would be able to arrange for a meeting of the Brain Committee the next year.

...to discuss the atlas business. Anyhow, we wish to continue the joint edition and as soon as the relations become more quiet, meet. How much I would wish to speak to you again personally.

Winkler agreed and proposed to send letters to all members of the Brain Committee. 'Perhaps we manage to save at least some of the international relationships'.

In August and October of 1916, they discussed the proceedings with respect to the Brain Atlas again. Winkler wrote, 'My work starts between the IVth and Vth section... The difference of view between both draughtsman [Genosuke Fuse in Zurich and Ada Potter in Amsterdam] is considerable'. Due to the circumstances, Winkler did not come further than the trigeminal.

Would it be possible that [Frederick] Mott and [Ludwig] Edinger and Pierre Marie also take care of drawing some of the plates? It is difficult indeed to enter into broken relations again. The English, and it is ever increasing, consider every German as a human being with whom one should not shake hands again. And that goes much further in the world of scholars than in the commercial world' (Winkler, October 1st, 1916).

Terminology is also an issue in the correspondence, for example, with respect to the *fasciculus longitudinalis posterior*.

In the Anatomist-Committee in the Academy the majority wished to keep the old name posterior. Others wished to give the bundle the name *ventralis*. Following the wish of Edinger, I will name it *dorsalis* and *posterior* between parentheses' (April 2nd, 1918).

'Degeneration' of Neurological Practice and Scientific Work

In April 1915, Winkler, who had moved from Amsterdam to Heilbronner's clinic in Utrecht, complained that he did not have enough time for scientific work. 'Being 60 years old, I have to work like a donkey. I have done the clinic almost myself, due to mobilization duties of his residents (August 22nd, 1915). There was a period in which they arrived at 9 am and left at 2 pm (May 7th, 1917). In March 1916 he recorded that he was supervisor over 90 beds, the residents being claimed by the authorities. 'Gradually but with great certainty, my nice new clinic will go the way of degeneration... If I were young, I would go to America' (March 23rd, 1916). He feared that Holland would be drawn into the war, in which case all resident places should be taken by women. A few months later, he wrote that the clinic as well as the library had finally been organized. Microscopic and macroscopic collections had been catalogued. He had done hundred brain operations (in cooperation with a surgeon; Winkler had published on the triangulation method of localization in 1882) [10, 11], and received patients from all over the country (July 19th, 1916). He also engaged in surgery of spinal cord tumors (1917). In the meantime, life in a neutral country as Holland is not easy:

Furthermore, life has become difficult here. No coals, no petroleum, no gasoline. Imagine that in the countryside everyone goes to bed at 8 or 9 p.m., that one uses wood to cook, and

that one often has only candles for light. If there will be no peace, the winter of 1917/18 will be awful' (Winkler, May 7th, 1917).

Monakow had quite different concerns. Based on the personal dismay created by the war, he changed the direction of his research toward psychobiological work with a holistic impulse [12, 13]. It is of interest to note how he, as the father of the diaschisis-concept in brain function [14], applied it metaphorically to society: the origin of a new function following the 'shock' of war (Sherrington's spinal shock). In contrast to the ambiguous popular pre-war degeneration idea (see Oswald Spengler's 1918 *The Decline of the West*) [15], it would come to a new start after the war, by which experienced lesions, similar to those in stroke patients during the rehabilitation phase, may be compensated on a new foundation through a positive functional connection. 'Die Diaschisis, die der Krieg gesetzt hat, muss doch auch einmal überwunden werden' [The diaschisis set loose by the war, must now finally be overcome] [16, 17]. Winkler, obviously less holistically disposed, commented on the manuscript in a long letter in July 1916.

Summary and Conclusion

History sources like correspondence and perhaps even more oral history, such as the current Oral History Program of the American Academy of Neurology (led by one of us, PK), although perhaps more subjective, are impor-

tant sources as they provide information that is usually not found in official documents. Confidential information, not destined for others than the addressed person, can often be found. Moreover, history from diaries and letters may be compared to 'prospective (historic) research' as the authors are not able to give interpretations with hindsight. From the Winkler-Monakow correspondence that lasted over 20 years, we discussed the five war years. We were particularly interested in what two leading European brain scientists wrote about international relationships and their personal problems. Interestingly, but perhaps also naively, they believed that scientists were able to influence war. While Winkler continued his activities as a neurologist, Monakow experienced a change in scientific interest toward psychoneurology. He directly related cultural development and brain science, bringing in his own emotions. In this context, however, we have to consider his family history, the early death of his mother, the multiple times he had to move due to war, and several depressive crises he underwent as a child. The medical historian Anne Harrington wrote 'When Monakow finally came down from the Swiss mountaintops, he had turned from a neuroanatomist and aphasiologist into a student of the biology of human behavior in its widest possible sense', suggesting that changes in his interests started even before WWI, but this correspondence suggests a later point of time [16]. It resulted in the first of several publications on the relations between biology, brain science, and culture [12, 13].

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