

Separating Politics and Science after the Chemists' War

Ernst Cohen in the Land of Ben Franklin

by Jorrit Smit

“I do not know enough about the American people to be criticizing their customs... there is but one thing that I know much about, and that is chemistry. Politics do not interest me.”

Ernst Cohen, Diary of USA Trip, 1921 (*The Daily Iowan*)

In October 1921, Dutch chemist Ernst Cohen strongly voiced his position on the separation between science and politics. In this specific case, it was just one reply to a curious reporter of a local Iowa City newspaper, who inquired what the learned man thought about the prohibition then current in the United States. But it is indicative of a deeper conviction on how science and society relate to each other. For Cohen, these ideas about the relation between chemistry and civilization were instructive for the way he approached his internationalist endeavors, already touched upon by Geert Somsen in this issue. (see page 16) In this piece, I will tease out a bit more how Cohen managed to keep politics and science neatly separated at a moment in time, in the wake of the First World War, that the horrifying images of chemical warfare were still on everyone's mind.

The occasion for this text is, again, the upcoming IUPAC meeting in The Hague, which inspired us to revisit the previous time IUPAC met there. Elsewhere, I have described in detail the different initiatives of Cohen, the main organizer of the 1928 IUPAC conference in The Hague, and other “neutral” chemists in the 1920s to restore international scientific contact [1]. Somsen has described aptly how this fitted in various histories and interpretations of internationalism, now and at the time [2]. Central in Cohen's internationalist efforts were two informal meetings in Utrecht in 1921 and 1922, what came to be known as the “international chemical reunion Utrecht” (ICRU) [3]. Here, however, I will follow Cohen on a visit to the US in-between these reunions to address the mixing of science and politics that, according to him, required separation.

The land of Benjamin Franklin

In the summer of 1921, Ernst Cohen traveled by boat from Rotterdam to New York for a five-month trip along the East Coast and through the Upper Midwest of the United States. From his travel diaries of that period speaks amazement with the speed, scale, and



Photo & signature as printed in the obituary published by the Royal Society in May 1948; <https://doi.org/10.1098/rsbm.1948.0005>

automation of modern American society, typical of European visitors at the time. In a later report of a second, longer trip to the “land of Benjamin Franklin,” in the Dutch chemical weekly, he highlighted how the massive amount of cars seems to make everybody hasty and marveled the “ingenious division of labor” at the Ford Factory in Chicago [4]. In return, American reporters described him as a man with “unbound energy and enthusiasm” [5] and “one of the most famous men in science today” [6] —alongside which Cohen scribbled: “Echt Amerikaansch! Altijd the biggest, best, enz!” [7]. More generally, the pragmatism of American society appealed to him, as he himself fashioned a modern persona as “man of the deed.” Exemplary is how, also in 1921, he barged into a meeting of a coal trading company in Amsterdam to walk out with a fat cheque for the National Congress for Natural Science and Medicine, which he presided [8].

In the US, Cohen had been invited to lecture at various universities and local chemical societies but also at industrial associations, firms (General Motors), and for general audiences. “How democratic,” he remarked, that even “shop servants” showed up at these events. Cohen lectured, with the help of lantern slides, on a range of topics, from physical chemical lectures about diffusion or “tin pest” to more general talks on “women in science” and “caricatures in science.” The lecture tour raised considerable interest, as the many newspaper

clippings show that Cohen collected in his diary. In one, the Dutch ambassador amazes a Chicago journalist by talking about Cohen's discovery of "metal diseases." [9].

Performing Internationalism

In the interviews that appeared with Cohen around these events, the reporters seldom failed to address the question of internationalism in science, and his role in it. Several newspapers characterized him as the "ex-Kaiser's neighbor," as the former German emperor now lived in a small town next to Utrecht. Cohen appreciated it as "a strong piece of journalism" but must have preferred how the *Ohio State Journal* characterized him: "Dutch chemist acts as clearing house between scientists whose relations were broken by war." [10] At the first international reunion in 1921, Cohen had decided to start circulating chemical treatises from Utrecht, hoping that at some point former adversaries would "have the nerve" to write each other directly again, without his mediation.

For a big part, internationalism was the reason why he crossed the Atlantic in the first place. The first stop, namely, was the joint meeting of the American and British Chemical Societies in New York, where his internationalist reputation had preceded him. The organizer, Charles Baskerville from the College of the City of New York, invited him in advance to join a special "international meeting." [11] The loaded atmosphere of the war aftermath was still tangible, wherefore Baskerville considered it "not easy" to select a suitable topic: "*for while chemistry, as all science is essentially international in character, in view of all the temporary factors (primarily political) involved, formal discussion of such matters as commerce, economics, patents, nomenclature etc. were to be avoided.*"

Basically, every part of chemistry that involved standardization for the purpose of international trade was deemed out-of-bounds as potentially too political. Cohen would follow a same line at the second international reunion in Utrecht, the year after, where only "scientific" papers were presented and he cut short any discussion that might touch upon nomenclature, for example [12]. And he defended this position already during his American road trip, when chemists like William A. Noyes asked him whether his international reunions were meant to compete with the IUPAC [13]. At the meeting in New York, Baskerville had decided to move full force ahead by selecting the theme "Chemistry and Civilization." And, aware of performative effect, the organizers wanted to "allow the imagination full play" by creating a theatrical *mise en scène* with bright spotlights on the speaker against a dark background,

creating long dramatic shadows. In this way, the lectures in this plenary session could "inspire" the three thousand chemists or so that would attend to realize what "our science has done" and above all to stimulate them "to do something worthwhile in the world's work and for *real civilization*." [14]

Chemistry and Civilization

Cohen was the right person to address this request to, as one newspaper had identified him with the preachment: "Forget the War." He told the reporter: "The sooner the scientists of the world forget the animosities engendered by the war, the better it will be for the progress of science." [15] What is more, in the Netherlands the physical chemist had been engaging in public debates about the civilizing role of science. In a lecture series about the Future of Society, in Amsterdam, he reacted "astonished" to the suggestion that the World War had made people turn away from science towards mysticism. The "adepts of the goddess" (pure science) nor the "practitioners" had anything to do with the "feuds between inflamed nations." Science was "prostituted" in the war by political forces for "disasters and destruction," while in principle it served the happiness and prosperity of the people. [16]

The war had not tainted the purity of science, not for Cohen at least. Rather, more knowledge of the natural sciences was needed in all layers of society. In 1917, he went as far as claiming that compared to politicians, ignorant about the power of science, scientists would have been even better equipped morally to make wartime decisions [17]. And, at the earlier mentioned 1921 National Congress for Natural Sciences and Medicine, he described the moral superiority of the atheistic natural scientist who led his life by "*Wahrhaftigkeit und Gewissenhaftigkeit*" and excelled in perseverance, self-control, fairness, prudence, modesty and altruism [18].

In the wake of the war, other commentators in the Dutch public sphere challenged this position, claiming that one-sided scientific specialization precisely caused the "utilitarian prostitution" of science during war. But Cohen firmly held on to the civilizing value of science that trumped both the humanities, religion and politics. This optimistic and scientific message turned out to be very welcome on national and international stages and formed the idealistic fundament for his practical internationalism.

Conclusion

In 1928, Ernst Cohen opened the IUPAC meeting in The Hague with a lecture titled "Prithee, more zeal" or "*Surtout, plus de zèle*." As always, he was aware of

linguistic sensitivities, and delivered the lecture both in English and French. Also typical of his style, was his inversion of famous quotes from philosophers, poets and politicians. In this case, he bent the words of the famous French diplomat Talleyrand who, during the post-Revolutionary period, called for *less* zeal—a term then associated with the ceaseless passion and hyperactive (and often violent) statecraft of the Revolutionaries [19]. Although Cohen consistently sought to separate science and politics, he used the words of a politician to call for new ways of working within the international union of chemistry. At the time that the restoration of international relations in chemistry was nearing its conclusion—Germans were welcomed as visitors, and would re-enter the Union the next year [20]—Cohen seemed to use Talleyrand's wrangled words to suggest that his own passionate but effective diplomacy style could inspire the work of the Union as a whole.

Ultimately, the separation of science and politics in public performances was central to Cohen's diplomatic strategy as he traveled in the US and all over Europe to restore international relations. The question is, of course, what this means for the present work of international chemistry. Now, another war has obstructed partly international contacts in chemistry, as the conference in The Hague does not accept any ties with Russian organizations, but still welcomes Russian individuals [21]. Now, it is not so much chemical weapons, but the provision of energy that is simultaneously at stake. This points to the interrelated problem of the climate crisis, to which so many chemical industries have, in the end, been instrumental. Climate change is also a topic on which the science is clear and the lack of political action confusing, if not dangerous. These urgent issues raise the question, how should we think about the relation between science and politics today? Time to keep science and politics neatly separated is running out [22]. Rather, it might be time to be more *zealous* towards the values and interests that direct chemistry to reimagine and work towards a more just and ecologically healthy future. 🌱

1. Jorrit P. Smit, "The Politics of Interwar Chemistry: Neutrality and Nationalism in the Rhetoric and Actions of Internationalist Chemists," in *Closing the Door on Globalization: Internationalism, Nationalism, Culture and Science in the Nineteenth and Twentieth Centuries* (Routledge, 2017), 17–39.
2. G. J. Somsen, "'Holland's Calling': Dutch Scientists' Self-Fashioning as International Mediators," in *Neutrality in Twentieth-Century Europe. Intersections of Science, Culture, and Politics after the First World War*, 2012, 45–64; G.J.

Somsen, "A History of Universalism: Conceptions of the Internationality of Science from the Enlightenment to the Cold War," *Minerva* 46, no. 3 (September 1, 2008): 361, <https://doi.org/10.1007/s11024-008-9105-z>.

3. J. P. Smit, "Nuclei in a Supersaturated Solution. Utrecht Chemists and the Crystallization of International Relations after the First World War," *Studium* 7, no. 3 (November 26, 2014): 190–208, <https://doi.org/10.18352/studium.9834>.
4. Ernst Cohen, 'Afdrukken en indrukken uit het land van Benjamin Franklin', *Chemisch Weekblad*, 1927. In 1921, Cohen had refused to publish his American experiences, because he did not consider his first and singular impressions trustworthy enough – demonstrating that his stringent empiricism stretched beyond the laboratory. See: Cohen, E.J. *Na Driekwart Eeuw. Levensherinneringen*. Utrecht: Uitgeverij Matijds, 2013, 194.
5. The Daily Iowan
6. The Michigan Daily
7. MC DB; 'So American! Always the biggest, best, etc.'
8. Jorrit P. Smit, "Purity in an Impure World. Ernst Cohen's 'General Chemistry' in Early-20th-Century Netherlands" (Utrecht, Utrecht University, 2015).
9. *Chicago Evening Post*. MC DB
10. Ohio State Journal. MC DB
11. Baskerville to Cohen, 28 June 1921 [Dagboeken/BH]
12. Smit, "Nuclei in a Supersaturated Solution."
13. E.J. Cohen, *Na Driekwart Eeuw. Levensherinneringen*. (Utrecht: Uitgeverij Matijds, 2013), 194.
14. Ibidem
15. Ohio State Journal, [MB/DBEC]
16. E. Cohen, "Quo Vadimus? (Een Blik Op de Toekomst Der Wetenschap).," in *De Toekomst Der Maatschappij: Negen Voordrachten Gehouden Voor de 'Amsterdamsche Studenten Vereeniging Voor Sociale Lezingen* (Amsterdam: De Maatschappij voor Goede en Goedkoope Lectuur, 1917), 299–325; Smit, "Purity in an Impure World. Ernst Cohen's 'General Chemistry' in Early-20th-Century Netherlands."
17. Cohen, "Quo Vadimus? (Een Blik Op de Toekomst Der Wetenschap)."
18. 'Veracity and conscientiousness' Cohen, E. (1921). Photographie of Karikatuur? Rede uitgesproken bij de opening van het 18e Nederlandsch Natuur- en Geneeskundig Congres te Utrecht
19. Benjamin Schwarz, 'Charm Offensive', The Atlantic, December 2007.
20. Smit, "The Politics of Interwar Chemistry."
21. <https://iupac2023.org/statement-russia/>
22. "AR6 Synthesis Report: Climate Change 2023 — IPCC," accessed March 31, 2023, <https://www.ipcc.ch/report/sixth-assessment-report-cycle/>.

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