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Writing - General

Anti-Semitism, Tolerance and the Politics
of Chemistry in 19th C. Vienna

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ANTI-SEMITISM, TOLERANCE, AND THE POLITICS OF CHEMISTRY IN NINETEENTH CENTURY VIENNA

Introduction

No city in Europe in the nineteenth century had a history as deeply intertwined with the careers of its Jews as Vienna. No city has had more great Jewish scientists and artists, and none has harbored more virulent anti-Semitism.¹ The long history of the Jews in Vienna covers periods of prosperity and persecution which depended on the needs and whims of the Habsburg monarchy. During wars against Protestants or the Turks, whenever there was pressing need for their support as financiers and suppliers of food and munitions for the army, the wealthier Jews were protected by Imperial policy. When need for organized support lessened or opposition from the Catholic Church and from popular demonstrations increased, they suffered suppression and even expulsion. The Empress Maria Theresia (1740–80), like most of her Habsburg ancestors, despised the Jews and restricted the number living in Vienna to wealthy bankers and their families. Of a total of 350,000 Jews living in the entire Austrian Empire in 1779, only about 500 lived within the city.

Maria Theresia's son, Joseph II, driven by the desire to make his dominions more efficient and prosperous, made great efforts to centralize and modernize the Habsburg empire. In 1782, one year after his ascension to the throne, he issued the *Toleranzpatent*, which made it easier for the Jews to settle in

* The writers gratefully acknowledge the assistance of Professor Edward Timms.

¹ For overviews, see:

- (a) R. S. Wistrich, „The Jews of Vienna in the Age of Franz Joseph“, Oxford University Press, 1990;
- (b) G. E. Berkley, „Vienna and Its Jews: The Tragedy of Success, 1880–1980's“, Abt Books, Cambridge, Massachusetts, 1988;
- (c) B. Pauley, „From Prejudice to Persecution: A History of Austrian Antisemitism“, The University of North Carolina Press, 1992;
- (d) M. L. Rozenblit, „The Jews of Vienna 1867–1914: Assimilation and Identity“, The State University of New York Press, Albany, 1983;
- (e) P. J. Shore, „Jews at the University of Vienna, 1782–1822“, *Öst. Ges. Wissenschaftsgeschichte*, 15, 43 (1995);
- (f) R. Rosner, „Die Chemie in Österreich zur Zeit der Veröffentlichung von Josef Loschmidt's *Chemische Studien*“, ADEVA Archiv der Universität Graz, 1997.

Vienna and removed some of the worst restrictions under which they suffered.² They were encouraged to engage in agriculture and to learn trades. Most importantly, Jews were permitted to attend schools and universities and could receive doctorates in the faculties of Medicine and Law.³ The edict's goal was: *To make the Jewish nation useful and serviceable to the state, mainly through education and enlightenment of the Jews as well as by directing them to the sciences, the arts and the crafts.*

This ordinance was strongly criticized by the conservative members of the Catholic clergy, led by Christoph Anton Cardinal Migazzi, the Archbishop of Vienna, and many others. After Joseph's death in 1790, new regulations were issued by his successors, Leopold (1790–1792) and Francis I (1792–1835) which again made it more difficult for Jews to stay in Vienna and the neighboring provinces of Upper and Lower Austria. But in spite of all the restrictions, a growing number of Jews did settle in Vienna in the first decades of the 19th century and start businesses.

Some of these were related in one way or another to chemistry. A survey of the development of industry in 1825 reported that production of acetic acid had begun in Mödling, a town near Vienna, according to the process developed by „Ehrenfels the Israelite“.⁴ Several patents for novel methods of producing acetic acid and for tanning and similar trades were granted to Jews coming from the Eastern part of the empire, but such business activities were often feared by Gentile competitors who tried to oppose the licensing of Jewish merchants, and were willing to go to the authorities to prevent such competition.⁵

² The legal and political background of emancipation in the Habsburg lands is outlined in „Joseph and the Jews: The Origins of the Toleration Patent of 1782,“ *Austrian History Yearbook*, 4, 101–119.

³ Joseph's decree of January 12, 1782 states „...His Majesty has most graciously resolved that as children of Jews are permitted to attend all schools of higher learning apart from those of Theology, provided they exhibit excellence through talent and application in the sciences, have passed all preliminary examinations and fulfilled all requirements, they may attain the title of Doctor in Law and in Medicine ...“ [Translated from the decree in the archives of the University of Vienna]

⁴ S. von Keess, *Beschreibung der Fabrikate, die in den Fabriken des österreichischen Kaiserstaates erzeugt werden*. Vol. 2, p. 356. J. Wellishauser, Vienna, 1820–1823. Anton Ehrenfeld, whose father was „*Essigfabrikant*“ (producer of acetic acid), was a student at the Polytechnical Institute in 1819–20.

⁵ Competition between Gentile and Jewish merchants had long antecedents in the Habsburg empire. See Tomas Pekny, *Historie Židů v Čechách a na Moravě*. Sefer, Praha 1993, p. 220ff.

Regulations for the establishment of such businesses were very restrictive, and the Professor of Chemistry of the Polytechnic Institute (today the Technical University) in Vienna was often consulted before any chemistry-related business could be established.⁶ Professor Paul Traugott Meissner (1778–1864), a native of Transylvania, who held this position from 1816 to 1845, met fierce opposition when he tried to help Jews.

P. T. Meissner's The Emancipation of the Jews

Meissner was a man of unique character and great wit and therefore popular with his students. He was known for his experimental skill and for the development of novel chemical equipment, but he was very obstinate and sometimes quarrelsome. He clung to theories which had been discarded by most other scientists and developed his own system of chemistry, for which he was strongly criticized by Justus von Liebig, the most outstanding German organic chemist of his time.

Meissner's greatest claims to fame came through two totally different events. His invention of a practical heating system for buildings in Austria endeared him to the upper classes. Yet Meissner had his enemies. Liebig's attack on him in an article on chemistry in Austria described his incompetence as a teacher of chemistry and finally led to his forced retirement.⁷

... in the most important and most influential institute, we see a man of whom we can honestly say that he has harmed his country immeasurably. His tremendous memory is like the stomach of one who eats everything that is offered. Food is gobbled up along with bits of glass and stones, but nothing of

⁶ The Polytechnical Institute was divided into a commercial and a technical division. From its very beginning, there were Jews, mainly from Hungary, Bohemia, Moravia and Triest, enrolled in each division. The exact number cannot be determined. The records of some students were clearly labeled 'Israelit'. Others indicate that the student came from the 'Israelitische Schule in Prag'. Yet others gave the father's profession as 'Handelsjude'. In some instances, only the names – e. g. Wertheimstein in 1816, Eduard Lewy and Joseph Muttersgleich in 1817 – suggest that they were Jews.

It is interesting to note that many Moravian Jews obtained patents related to the production of alcohol and acetic acid. Albert Lewin and Moses Trebitsch from Nikolsburg received a patent in 1824 for improved distillation equipment, as did Wolf Tauber from Leipzig in 1825 and Isaak Kohn from Jämnitz in 1826. Before Ehrenfels the Israelite produced acetic acid in Mödling in 1825, Rubin Friedman and Albert Simon Kohn had received patents for improved acetic acid production in 1823. [S. von Keess and W. C. W. Blumenbach, *Systematische Darstellung der neuesten Fortschritte in den Gewerben und Manufakturen*, Vol. 2, pp. 198–209. Carl Gerold, Vienna, 1830.]

⁷ J. Liebig, *Annalen der Pharmazie*, 25, 339 (1838).

what he devours goes into his bloodstream. His strength is not increased but rather diminished. In all his organs there is irritability and weakness, his nerves are jangled, his impressions are all wrong, his eyes cannot distinguish between colors, his feelings are dulled. Read his books: every letter therein is typically Meissner.

... Take a young man who has studied under Meissner: he is stuffed with the most desperate and pretentious views. He has learned nothing about real chemistry ... Nonetheless, Meissner had many students: He was straightforward and totally without Viennese charm and hypocrisy. They loved him despite his being a Protestant – a rarity among Austrian academics – despite his absurd chemical ideas and his boring lectures – he usually read from a chemical textbook he had written and rarely demonstrated experiments.

He considered himself „a strict Communist“. Today we would call him an idealistic socialist. Perhaps his experiences in a minority religious group influenced his hopes for fair treatment for all. When, after the revolution of March 1848, censorship was abolished in Austria and everyone could express his views freely, Meissner wrote a book (*fig. 1*) of 177 pages proposing a constitution for an imaginary newly-populated island.⁸ Almost at the end of this „last epistle to his former students“ are his thoughts about Jews, expressed in vignettes:

The Emancipation of the Jews

My father had a large dairy farm in the suburbs. On the farm was a distillery where there was an old Jew named Abraham, a thoroughly honest fellow. He had a daughter called Salome. Salome had married Ephraim and the two had a son who was to be named Isaac.

Old Abraham had invited me to this celebration, but before the ceremony, the future little Isaac had a very human accident. I chanced to come along just as he was taken out of the bathtub and, cleaned up after this little mishap, was about to be tidied and made ready to appear before the Rabbi. I happened to notice for the first time that little Jewish babies looked exactly like little gypsies, ordinary Christians and even the babies of the nobility.

After this discovery in natural history had established itself in my mind, we moved on to the sacred business of changing the future Isaac into the present Isaac. Oh, even now, after sixty-two years, my mouth waters and I remember with pleasure how good the cookies were that old Martha gave me, which looked much like vetchbeans but were nicely brown and very sweet. Just as this delicacy was most luscious, little Isaac suddenly cried out at the very instant when he had turned into the Isaac of the present. I rushed towards

⁸ P. T. Meissner, „Des alten Schulmeisters Glossen über die neuen Verfassungs-Experimente“, Vienna, 1848.

him but couldn't see anything because of the rabbi's long caftan. Children, however, are careful observers, and also streetwise. Before a fortnight had passed, the secret was out, and from then on I couldn't stand the old rabbi with his long ugly beard. I really don't approve that man should want to correct God's work, just as is now the case with celibacy and was years ago – in honor of God – in the boys' choir of the Holy Father in Rome.

From then on, my childish ideas about Jews stood corrected. I then knew, through having seen this with my own eyes, that Jews were human beings, and I tried as best I could to help my father when he got angry, when he fought with the entire city because they would not allow him to keep old Abraham living at his dairy.

However, there were many occasions when I got angry by myself and argued pretty hard on my own account, quarreling with other people about the Jews, because no matter where my fate sent me, everywhere I found the same hostile spirit against this terribly downtrodden people.

From the frying pan into the fire – by chance I got my appointment where I was meant to act as a brake to keep the Jews down. I am speaking of the post as teacher of chemistry in the Polytechnic Institute, a post which involved me in refereeing trade disputes, particularly those dealing with licensing – all behind the scenes and clearly for the convenience of those in power.

In this position, I simply couldn't avoid a fight. I just had to choose between helping to keep these severely repressed Jews down or making a number of enemies. I chose to follow my conscience and so had to fight a good deal, and even in just causes was rewarded only with trouble and jealousy. Yes, it even came to the point that I was accused of accepting bribes, and the Minister President shouted to my face, „Well, we know that you are a patron of the Jews.“

From these facts, you can see, my friends, that I more than many another, had the opportunity to study the full extent of the pressure on the Jews, and I have therefore had occasion, more than others, to think seriously about the Jewish Question.

You may also conclude from this how happy I was later, that the old prejudices against this poor oppressed people slowly declined and were replaced by friendlier thoughts.

Finally, you will understand how sad I am nowadays to see this good feeling declining. Why is this happening? Because now and then a Jew in this period of free speech is speaking too loudly, and perhaps has even done something bad. Is that enough reason to hate the entire people, the people that has been treated more miserably than any other? I believe not.

Look here, my friends, this is the point we have now reached. Should the Jews be partially or completely emancipated?

By way of reply, I offer only the short account of the case in which I defended myself when I was called a patron of the Jews. What happened was the following. At the time of the famine of 1817, two hard-working Jewish brothers who wanted to work, not just as traders, had established a factory in Vienna in which a good many men found employment. Soon, however, Christian manufacturers of the same product complained and demanded their expulsion. During the investigation by the commission, and to its astonishment, it was found that most of the Christian manufacturers who were complaining had dismissed their workers because everything had become so expensive, whereas the Jewish manufacturers had kept their workers on – Christian workers, mind you – even though they could not sell their goods. And despite considerable sacrifice and troubles they continued to pay them. Hence, my conscience forced me to stand up for these good brothers, and this was why I was accused of being a patron of the Jews.

My defense was as follows: It is quite true that Jews have several bad traits, often, for instance, bargaining so hard that I could not possibly defend it. However, it is undoubtedly equally true that Jews have been forced out of all other means of earning a living and the only thing they could do was to trade. This has been so for the last 1800 years and has forced the Jews to become what they now are.

If this really is the case – and surely no sensible person can deny it – then we are the real cause of this, and we have the absolute obligation to give these miserably treated Jews all rights, without exception, just as we have them. Then we should wait for another 1800 years to see whether they change.

If the Jews don't change in 1800 years, then there is proof that they are absolutely no good, and we have the right to drive all of them out of the world. I prophesy, however, that the emancipated Jews, once they live among us, will be ashamed of their repulsive peculiarities and customs and will lose these. Yes, I even prophesy that emancipation is the surest means of letting the Jews disappear completely from the world as a peculiar people, because, through marriage they will intermingle with other people.

„You are certainly mistaken in that,“ the President shouted, „because a Jew will never marry a Christian.“ My reply was, „Your Excellency, I don't depend on the Jew at all. My hope rests on the Christian son. The young scamp will look over the fence and discover that the daughter of Israel is a very pretty child. He will chat up pretty Judith and poor old Israel will have to recognize his fate. That is what my calculation is based on.“

That was my opinion then and still is and will remain so, because I am convinced that God is such a great monopolist, that despite our different Gods, once God's patience is at an end, he will chase us with the broom of common sense into a single and united church.

Now, however, my Old Testament friends, a word to you: „Look, you cannot imagine how much I have had to bear because of and for you these 40 years. Inquire and you will learn that even at the time when it was still customary, I never accepted the ducats offered by your brothers. However, I certainly deserved thanks, and now in these new times, I demand it. Therefore I ask you for two things:

Firstly, restrain your hotheads so that they do not inflame other people too much. Be assured that it does no good. It alienates many a person who felt warmly toward you, and it can only do harm.

Secondly, I still do not accept money from you; however, speak to your rabbis for me. They are in the position to do me a great favor. What is that? I don't have to tell you. The rabbis are educated people. They will discover for themselves what they should, or rather, what they should not do.

Now, however, another word to you, my Christian friends – a little story. A few days ago, at the Schottenhof, I met an old butcher whom I have known for 34 years and who feels kindly towards me. Meaning well, I spoke very strongly to this fellow about these hotheads. Think carefully about his answer. „Dear sir,“ he said, „when a man has had nothing to eat for a long time and then comes to a laden table, he thinks that he simply cannot get enough, and so he sometimes eats too much. You shouldn't take that amiss.“ „Isn't the old butcher a clever man? Should we be less clever than that old butcher?

While Meissner was arraigned as an incompetent chemist, he nevertheless was idealistic and tolerant at a time of widespread intolerance. It is worth noting, however, that Meissner did express the hope, common to many Gentiles educated after the Enlightenment, that the Jews would ultimately „change“ and thereby become better citizens.⁹

Viennese society, and university academic culture in particular, were slow to accept even the cautious tolerance of Meissner. Although the first Jewish students entered the medical school in Vienna in 1782 and received their degrees in 1789, study and advancement, particularly in the academic world, was extremely difficult until late in the next century.¹⁰ The careers of Wilhelm and Theodor Wertheim illustrate the problems Jews faced.

⁹ Enlightenment intellectuals, almost without exception, tempered their toleration of Jews with the hope that contact with Gentiles would ultimately „improve“ them. See Jonathan Hess, „Progress, Violence and the Jewish Question: Christian Wilhelm Dohm and the Debate on Jewish Emancipation in Eighteenth-Century Germany,“ Proceedings of the East-West Seminar, Berlin, 1997 (in press).

¹⁰ Max Neuberger, „Die ersten an der Wiener medizinischen Fakultät promovierten Ärzte jüdischen Stammes,“ Monatschrift für Geschichte und Wissenschaft des Judentums 62, 219–222.

The Careers of the Wertheim Brothers

The father of Wilhelm and Theodor, Zacharias Wertheim, descendant of a Viennese Jewish family of 'Hofjuden' (protected Jews) who had been prominent for centuries, had graduated from the medical school in 1802 at age 22. Wilhelm and Theodor were particularly attracted to physics and chemistry, fields which Jewish students were entering in greater numbers in the decades after 1815. Both were taught in the medical faculty at the University of Vienna until 1849, when they came under the faculty of philosophy. After receiving his M.D., Wilhelm went to Berlin to continue studying physics and chemistry with Mitscherlich. Theodor, the younger brother, followed him to Berlin before his graduation, despite their father's protests.¹¹

Wilhelm, a physicist, then moved to Paris to accept a position at the Ecole Polytechnique. Theodor, who concentrated on organic chemistry, returned to Austria to work with Redtenbacher, a Liebig student, who had become Professor of Chemistry in Prague. Redtenbacher helped him obtain a grant for his research, which enabled Wilhelm Wertheim to publish a paper, praised by Liebig and Berzelius, on the chemistry of oils of garlic and mustard. In 1848, the year of great revolutionary hope for reform, both Wertheim brothers were elected members of the newly-formed Vienna Academy of Sciences. There was no possibility of academic advancement in Austria, however, for only members of the Catholic church were normally appointed as university professors.¹² After the death of their father in 1852, Theodor converted and was offered a professorship in Pest in 1854, where he taught in German until 1860. After 1860, because of Hungarian nationalist demands, he was required to lecture in Hungarian, although they would have made an exception and allowed him to teach in Latin, the traditional language of education and politics in that country. Unwilling to do this, Theodor moved to Graz in 1861, where he was successful, becoming dean in 1862, a position he held until his death in 1864.

Wilhelm would not consider conversion and remained in Paris, where Jews had enjoyed relatively better opportunities since the reforms initiated by

¹¹ Biographical sketches of the Wertheim family are found in C. von Wurzbach, „Biographisches Lexicon des Kaiserthums Österreich“, Vol. 53, 113–121 (1886), Vienna; and Siegfried Plaschkes, „Die ersten jüdischen Ärzte der Wiener Universität und ihre Schicksale“, Bulletin des Leo Baeck Instituts, 5 (1962), p. 207.

¹² As early as 1806 a Protestant had been appointed to the Faculty of Philosophy, but the culture of the University of Vienna for many decades slowed the admission of non-Catholics, Protestant or Jewish, to university posts. See Shore, *op. cit.*, p. 62. The issue of how academic prejudice in Austria against non-Catholics in general related to widely held societal attitudes of anti-Semitism merits further investigation.

Napoleon.¹³ Yet despite being greatly appreciated there, he wanted to return to his native Austria. In 1851, he did go briefly to Vienna, hoping to obtain some position commensurate with his abilities but was offered only a „Docentur“ at the university, the equivalent of an assistant professorship, which was itself considered a special concession. Frustrated, Wilhelm ultimately returned to Paris, where he became a French citizen and received many further honors for his outstanding work during the next ten years. Yet he was not happy, sank into a deep depression and committed suicide in 1861.

Wilhelm Wertheim's obituary was written by Anton Schrötter, Meissner's successor as professor of chemistry at the Polytechnic Institute in Vienna and secretary of the Academy of Sciences. Schrötter regretted the fact that no matter how outstanding, no Jew was ever given a professorship at an Austrian university¹⁴:

Thus passed a man of rare talent in the full flower of his powers, in a foreign land which had welcomed him, while his fatherland has only the consolation that hopefully the times have gone forever when a flawless character and outstanding scientific ability are not the deciding factors in the choice of a teacher.

Schrötter was overly optimistic in thinking that flawless character and scientific ability would eventually outweigh questions of religion. Anti-Semitism had continued and as the nineteenth century preoccupation with nationalism increased, had become more racial than religious.

Since the revolution of 1848, liberalism had been the dominant ideology of intellectuals and scientists in Austria as in most other European countries. But Austrian liberalism was not merely anti-clerical as elsewhere. With the growing demand by other nationalities within the Habsburg empire for the same rights as the German-speaking population, the Austrian liberals became increasingly German nationalists and anti-Slav. Significantly, their attitude was shared for some time by most Jewish intellectuals who were German-speaking. These Jews chafed under the humiliating sanctions placed on them and identified with the desire for constitutional freedom and equality, considering themselves not only Austrians in terms of political identity but Germans in terms of culture.

Some Austrian Jews had played a prominent part in the Revolution, for which they were blamed by the establishment and the Catholic Church, which was

¹³ See Abram Leon *Sachar*, *A History of the Jews*. New York: Alfred A. Knopf, 1964, pp. 281–283. Napoleon's reforms were preserved, at least on paper, first by the Bourbons and then by subsequent French regimes throughout the nineteenth century.

¹⁴ A. Schrötter, „Berichte des General-Sekretärs“, p. 188, Almanach, Academy of Sciences, Vienna, 1861.

alarmed by the prospect of equal rights for Jews. However, government restrictions were finally removed by the Constitution of 1867. Enacted primarily to appease Hungarian demands for equality, it „abolished all disabilities on grounds of religious differences“. As a result, the number of Jews in Vienna increased rapidly.

By 1885, 35% of students at the University of Vienna were Jews.¹⁵ Although this number decreased in the following years, fear of competition and Jewish domination of finance fostered a spread of racial anti-Semitism throughout the university. Many Jews had assimilated and intermarried and many others had converted, but to the anti-Semites, the conversion of a Jew to Christianity did not alter his 'race', in increasingly secular and ethnicity-conscious Austrian society the defining characteristic of a Jew. Even the famous surgeon, Theodor Billroth, later one of the non-Jewish founding members of the League Against Anti-Semitism, warned in a book¹⁶ in 1876 against having too many „members of the Jewish race“ in the medical profession. Defined in these ominous terms the „Jewish Question“ became one of the main topics in the political life of Vienna, particularly in the University.

Billroth, Loschmidt and the Jewish Question

Billroth's comments exemplify the opinions of many well-educated intellectuals:

Many young people, mainly Jews from Galicia and Hungary, come to Vienna absolutely penniless, with the crazy idea that they can earn a living (through giving lessons ...) and study medicine at the same time.¹⁷

Billroth stressed that he did not wish to be mistaken for *One of those modern Jew-bashers (Judenschimpfer) who are so popular these days... Thanks to their active imagination, Jews often have talent for science and medicine. And thanks to the sharpness of their minds, their energy and their tireless capacity for work, even with limited material means, success is generally assured. So they are often able to achieve the highest. And, in fact, the distinguished among the Jews are usually visionaries, idealists and humanists at the same time, often in the spirit of the Nazarene who stands above us all.*

¹⁵ Bruce Pauley, „From Prejudice to Persecution: A History of Austrian Anti-Semitism“, University of North Carolina Press, Chapel Hill, 1992, p. 31.

¹⁶ T. Billroth, *Über das Lehren und Lernen der medizinischen Wissenschaften*, pp. 148–153, Carl Gerold's Sohn, Vienna, 1876.

¹⁷ It is interesting to reflect that penniless Eastern European youngsters could go to Vienna and study medicine at the University. It would have been much more difficult for sons of peddlers on the Lower East Side in New York to attend Columbia University.

Like so many Jews in Vienna (and elsewhere in Western Europe), Billroth looked down especially on the 'depraved' Eastern European Jews whose cultural norms were especially distant from those evident in the Imperial capital:

It seems to me that the Hungarian and Galician Jews have severely degenerated through constant inter- and early marriages (bridegrooms of 17 and brides of 12 are not rare) and in some areas are well on their way towards a certain physical and mental degeneracy.

He continued:

There is a widespread error, to speak of Jews as Germans or Hungarians or Frenchmen, who just happen to have a religion different from the other inhabitants of Germany, Hungary or France. One forgets completely that Jews are a clearly defined nation, and that a Jew can no more become a German than can a Persian, a Frenchman, a New Zealander or an African. What one calls Jewish Germans are Jews who just happen to speak German, who happen to have been brought up here, even though they may think and write poetry in better and more beautiful German than some Germans of the purest water. They lose their national tradition as little as Germans lose theirs among other nations such as Transylvania or America.

Note Billroth's identification of distant (New Zealand) or „savage“ (African) cultures as examples of societies irretrievably remote from German *Kultur*, as well as his regret at the isolation of ethnic German groups in Transylvania and America. Yet „isolated“ German speaking communities were often the most nationalist in their outlook. German nationalism was especially strong amongst German speakers in Bohemia and Moravia, even among those who were partly of Czech origin, and many of these opposed Slav demands for equal rights. In this complex situation some German nationalists looked on German-speaking Jews as their allies, while others were so anti-Semitic that they could not consider cooperation with Jews.

One of the latter was the influential scientist, Gustav Tschermak (1836–1927), a chemist who later became professor of mineralogy in Vienna. A German nationalist from Moravia, he changed the spelling of his name from Czermak to mask (not very effectively) his Czech origin. Whenever the appointment of a Jew was proposed by the members of the faculty of philosophy at the University, Tschermak opposed it. Seldom was his opposition overridden. In 1873, Adolf Lieben was proposed for the chair of the second of the two Chemical Institutes of the University of Vienna. Lieben was one of Austria's best-educated chemists. He had worked with Wurtz in Paris and with Cannizzaro in Palermo, and he had held the chairs in Turin and Prague, where he was one of the first Jewish professors. Despite Tschermak's objections, he was appointed and led this most important institute for organic chemistry until his retirement in 1906, but even this success, in a climate intolerance and

nationalism, had few positive consequences for the promotion of other Jews. Meanwhile the anti-Semitic atmosphere, particularly at the provincial universities throughout the Austrian Empire, became so pervasive that the Ministry of Education took „the Jewish question“ into account whenever a professor had to be appointed.¹⁸ Only in Prague was it somewhat easier for a Jew to become a university professor because there Jews were considered to be allies against the Czechs.

Tschemmak opposed the appointment of Guido Goldschmiedt in Vienna in 1885. In 1887 a new head of the chemistry department was to be appointed in Graz. Although Goldschmiedt was one of the ablest senior chemists suitable for the post and had strong support from Josef Loschmidt¹⁹, who was Professor at the University of Vienna and on the Senate there, anti-Semitism prevailed. It was feared that a Jewish professor would not be accepted by the students and staff, so the appointment was given to Zdenko Hans Skraup, a German nationalist of Czech origin. Eventually Goldschmiedt did receive the chair of organic chemistry in Prague where he was also elected dean. Only in 1910, four years after Lieben's retirement, was Goldschmiedt, then 61 years old, finally invited to Vienna. Tschemmak similarly opposed the appointment of another very able organic chemist, Josef Herzig.

The delayed career of Josef Herzig, a very able organic chemist, is an exemplary illustration of both the problems Jews experienced at the university and the way that the authorities under Francis Joseph dealt with these problems. At the time the University of Vienna had two chemical institutes, both headed by organic chemists. The head of the „Second Chemical Institute“ until 1906 was Adolf Lieben, as noted earlier. When the head of the „First Chemical Institute“ died in 1899, the most senior chemist there was Josef Herzig, a Jew born in Galicia, who carried on as temporary head. In the prevailing atmosphere of anti-Semitism at the university, the authorities were afraid of having Jews head

¹⁸ A well documented example for this was the appointment of a professor of chemistry in Innsbruck in 1902. As customary, the faculty made several proposals for the appointment: I. loco: Friedrich Emich (Graz) and Josef Herzig (Vienna); II. loco: Karl Brunner (Prague). In the report to the Emperor, the Minister of Education, Dr. Wilhelm von Hartel, said that he shared the doubts of the faculty regarding the acceptance of Herzig in Innsbruck, due to his Jewish religion. As Emich was still required in Graz, he proposed the appointment of Karl Brunner, who was appointed. (University Archives, Philosophical Faculty 639/1902 quoted in „Die Fächer Mathematik, Physik und Chemie an der Philosophischen Universität zu Innsbruck bis 1945“, edited by Franz Huter, Innsbruck 1971 p.191)

¹⁹ In an unpublished letter of March 4, 1888, Loschmidt wrote to Ludwig Boltzmann strongly supporting Goldschmiedt: „Among Austrian chemists who are not yet professors, Goldschmiedt is the most outstanding.“ (Archives of Graz University)

both chemical institutes. The Ministry of Education therefore decided to appoint a physical chemist as the head of the „First Chemical Institute“ (which ever since has been known as the Institute for Physical Chemistry). In 1906 Josef Herzig was appointed head of a newly created department for Pharmaceutical Chemistry, a post he held until 1923.

An interesting contrast to Tschermak's aversion to Jews is presented by Loschmidt²⁰. Born in a small village in Bohemia, he would have had his first contact with Jewish students at the University of Prague where he studied from 1837–41. From there he went to Vienna in 1841 and worked with Meissner and Schrötter, both of whom as we have seen favored a fairer treatment of Jews. Loschmidt spent one summer at the home of Meissner. In his posthumously published notes²¹, he described in detail Meissner's last lecture at the Polytechnic Institute in February 1845, the students' uproar that their beloved teacher was to retire, and the difficulties Schrötter had in his first lecture. Undoubtedly Loschmidt knew Meissner's essay about the Jews, published in 1848.

Loschmidt had considerable experience working with Jews. In Schrötter's laboratory, he and his friend, Benedict Margulies, later a Jewish convert to Protestantism, had developed a practical scheme for the conversion of sodium nitrate into potassium nitrate, required in gunpowder, and the two started a factory near Vienna. At first business went well, but the economic upheaval during the war in Hungary in 1849 led to the company's bankruptcy. In 1852 and 1853, Loschmidt worked in a chemical factory in Brünn (modern day Brno) owned by L. Kohn, presumably a Jew. He continued working with Margulies as we see from a joint patent application for an aeromotor filed in 1865. We know that the families remained close friends from correspondence between the wives and the inscription in a visitor's book on Loschmidt's death: „*Dem unvergesslichen Freunde (to a never to be forgotten friend) Benedict u. Anna Margulies*“. Loschmidt clearly had other Jewish friends, as the Margulies' inscription is followed by „*In Treuer Erinnerung, Oscar u. Hermine Bernheimer*“, another typically Jewish name.

²⁰ For a review of J. Loschmidt's life and chemistry, see W. J. Wiswesser, „Johann Josef Loschmidt (1821–1895): a forgotten genius“, *Aldrichimica Acta*, 22, [1] 17 (1989), and „Pioneering Ideas for the Physical and Chemical Sciences: Josef Loschmidt's Contributions and Modern Developments in Structural Organic Chemistry, Atomistics, and Statistical Mechanics“, *Proceedings of the Josef Loschmidt Symposium*, held June 25–27, 1995, in Vienna, Austria, Plenum Press, New York and London, 1997.

²¹ J. Loschmidt, „Zur Erinnerung an Anton Ritter Schrötter von Kristelli“, published posthumously, Vienna, 1906; A. Bauer, „Zur Erinnerung an Paul Traugott Meissner“, *Naturhistorisch-Biographische Essays*, Vienna, 1911.

As well as his business associations and friendships, Loschmidt knew many Jewish students and their parents because he lived and taught for nine years (1856–1865) in the Leopoldstadt, which had Vienna's largest concentration of Jews. Of the school's 250 students, 40% were Jews, over 50% were Catholics, and only 2% were Protestants. It is interesting to note that his weekly teaching load was 6 hours of chemistry, 5 of physics, and 3 of arithmetic, economics and bookkeeping, which would have brought him into close contact with his pupils.²²

Loschmidt was interested in the social and political issues of his day. Therefore, it is not surprising that at a time when the „Jewish Question“ was considered in Vienna to be a major issue, he gave some thoughts to the problem and put them down in a private note, which was found in his papers (fig. 2).

The Voice of the People is the Voice of God

The inundation by the Semitic race is no figment of the imagination. Public intuition carries the day against all the humanistic unction of popular literature. The danger threatens not only the lower echelons of society who feel the pressure firsthand, but also the state. It is both a social and a political tragedy. Every division that separates subjects of a state is a thorn in the flesh to the politician – he perceives it as a direct weakening of the strength of the state. It is no wonder that he brings his statesmanship to bear upon curing this attrition. It could be that the roots of the conflict lie in religion, or in language or in race [yet] it is always perceived as a misfortune and the solution has always been to cure the ill with whatever means are permissible – and probably also ones that are not permissible. Mostly – but not always, it is with miserable success. In world history, the attempt to come up with a state religion or the attempt to sustain one. Triumphs: the Spanish Inquisition, the Drayonnades in France, the Counter-Reformation in Austria. No longer suitable today, the cure worse than the disease. On the other hand, the work of changing language was carried out in a more gentle and often more enduring way. [Stricken by author: In Germany against the Slavs ... too often with a bitter end, when force] There are enough renowned examples to show that the multi-lingual issue is a real evil for a large empire, at least if one language is not the state language of the vast majority.

The implication of „Vox populi, vox Dei“, a quotation attributed to the Medieval scholar Alcuin, with which Loschmidt begins, is that most people in Vienna hate the Jews and the voice of the people is the voice of God. But a careful analysis combined with our knowledge of Loschmidt's friendship with Jews leads to the conclusion that this essay, written late in Loschmidt's life, is

²² Religiöse Zusammensetzung der Schüler in der Unterrealschule: Programm der Unterrealschule St. Johann in der Jägerzeile, Jg. 4 (1859), p. 26.

not an expression of virulent anti-Semitism. Loschmidt's reasoning about anti-Semitism is reminiscent of his scientific arguments. Compare this, for instance, with his most studied analysis, that of the structure of benzene²³. There he stated that one might be tempted to think of benzene as a diallene, or possessing a bicyclic structure, but then chose a monocyclic structure for all his aromatic compounds. About the „Jewish Question“, he felt that two or more languages, religions and cultures threaten the efficiency of any empire, and the essay shows to what extent the position of Jews in a multi-ethnic and multi-national state was considered a very important topic. His method in both cases – benzene and anti-Semitism – was to begin with what seemed reasonable – the diallene structure and ‘The Voice of the People’ – and then to take critical issue with them. Indeed, Loschmidt's ideas were not very different from those of many Jews themselves. Baron Maurice de Hirsch, who gave over \$100 million to Jewish philanthropy in 1896, wrote, „All our misery comes from Jews who want to climb too high. We have too many intellectuals. I want to prevent the Jews from pushing ahead too much.“²⁴

What can we learn from all this? Perhaps most importantly, the danger of generalizing about cultural attitudes. Scholars such as Daniel J. Goldhagen assert that anti-Semitism was part and parcel of the emotional makeup of Germans and Austrians.²⁵ Goldhagen writes:

*Anti-Semitism in Germany was such that when Germans, participants or bystanders, learned that the Jews were to be killed, they evinced not surprise, not incredulity, but comprehension. Whatever their moral or utilitarian stances toward the killing were, the annihilation of the Jews made sense to them.*²⁶

If anything, the Viennese turned out to be even worse than the Germans. Hermann Göring commended them in the autumn of 1938 for having learned in only five months how to „deal“ with their Jews, when it had taken Germans five years to learn²⁷.

Goldhagen's thesis raises most serious questions. On the one hand, he demonstrates beyond doubt that many Germans were not only anti-Semitic, but also approved of Hitler's plan to kill all Jews. And he acknowledges that „By no means should this [indictment] be understood that a timeless German character exists.“²⁸ On the other hand, by minimizing the virulent anti-Semitism of other countries – Poland and the Ukraine had pogroms of unspeakable

²³ Wiswesser, op. cit.

²⁴ Berkley, op cit., p. 56.

²⁵ D. J. Goldhagen, „Hitler's Willing Executioners“, A. A. Knopf, New York, 1996.

²⁶ Ibid., p. 403.

²⁷ Quoted in Pauley, op. cit., p. 285.

²⁸ Goldhagen, op cit., p. 594, footnote 53.

cruelty before Hitler, and anti-Semitism in Poland was spread more widely than in Germany – he points to a generalization regarding the prevalence of Anti-Semitism in German speaking lands, both in the twentieth and nineteenth centuries whose limits are not known²⁹. It is not simply that we can identify those rare individuals who later would openly oppose Nazi policies³⁰. We must also consider the complexities of the debates concerning „the Jewish question“ that went on for more than a century before the Holocaust, and seek to understand what the participants were striving, sometimes in deliberately indirect ways, to say. Meissner’s and Loschmidt’s writings do not invalidate what we already know about attitudes held by Austrian university teachers, but they contribute to a more nuanced picture of the intellectual climate of the time.

To analyze the views of four Viennese chemists – Meissner, Schrötter, Loschmidt, and Tschermak – does not give a statistically valid overview of anti-Semitism among Austrian chemists in the 19th century, but it does show what diversity existed within an environment which is sometimes dealt with in broad brushstrokes and may tempt us to demonize an entire *Zeitgeist*. Anti-Semitism undoubtedly was a significant, even dominant feature of intellectual life at the University of Vienna. Yet the stated positions of Meissner and Schrötter suggest that there were variations and subtleties among the attitudes held by members of the academic community that have not always been appreciated from the distance of a century and a half or more. The surviving writings of these men also raise the possibility that other heretofore unknown documentation of varying viewpoints of Austrian academics on „the Jewish question“ awaits discovery in university archives and elsewhere. What is certain is that the arguments such as Meissner’s and Schrötter’s in favor of more opportunities for Jews, were part of the prelude to the remarkable efflorescence of Austrian arts and science before 1938, tragically the final moment of cross-fertilization between Jewish and Gentile intellectual traditions in that country’s universities.

²⁹ Some of the clearest accounts of how widespread anti-Semitism was in Poland are given by concentration camp survivors, in Chapter 1, Pre-War Years, in Martin Gilbert’s „The Boys. Triumph over Adversity“, Weidenfeld & Nicolson, London, 1996.

³⁰ *Goldhagen* cites examples of almost unbelievable courage. A hospital chaplain in France, Walter Höchstädter, secretly printed his scathing protest against anti-Semitism and sent a thousand copies through the military mail to soldiers at the front (pp. 431–32). As early as 1935, Marga Meusel, a Protestant social worker in Berlin, warned, „It is not an exaggeration when one speaks of the attempt to annihilate the Jews.“ She continues, „What shall we one day answer to the question, where is thy brother Abel? The only answer that will be left to us as well as the to the Confessing Church is the answer of Cain“ (pp. 437–38).

Figure 1

Des
alten Schulmeisters Glossen
über die neuen
Verfassungs-Experimente
Letzte Epistel
an seine ehemaligen Schüler,
von
W. E. Meißner,
ehedem: Professor der Chemie am k. k. polytechnischen Institute in Wien;
jetzt: ein strenger Communist.

W i e n.
Verlag von Lendler & Comp.
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