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HERRN EUGEN DÜHRINGS REMOTION

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Ich bin verfolgt. Muß ich drum auch gleich edel sein?¹

In 1877, the Prussian Minister of Culture, on application of the Faculty of Philosophy of the University of Berlin, removed Dr. Eugen Dühring's *venia legendi*, the permission to teach, and the related status of *Privatdozent*. This rather unique act² at one of the world's pre-eminent universities, which involved scholars still famous today, concerned one of the most important scientific discoveries of the century, and attracted widespread attention, will be studied as a case in this essay. The guiding line is the question, to the extent that it is answerable, what really happened – for which some contextual explanation is necessary –, and whether, by the standards of 1877, the remotion was both legal and legitimate. Using a simple version of the latter dichotomy (see Creifelds 1996, "Legalität," 770), I mean by legal, in accordance with the existing laws, both 'in letter and spirit', and by legitimate, in accordance with an ethical-normative standard, preferably that of the protagonists.

The sources for such an investigation of the Dühring case are very good, because all relevant files are contained in a booklet published by the Faculty (*Aktenstücke* 1877; reprinted 1997), obviously in order to justify itself.³ Dühring himself later complained about the selectivity of the brochure, as it did not contain much material about a related previous case, and he thus called the "collection of so-called files ... a party pamphlet of the judge in his own cause." (1882, 194) But he did not claim that the files presented were themselves

[&]quot;I am persecuted. Must I therefore be noble as well?", Mardochai in Peter Hacks' version of Goethe's Jahrmarktsfest zu Plundersweilern. (II.ii; Hacks 1982, 38)

² But see, e.g., Schwinge 1961, 178-182, for more or less similar earlier cases.

³ These files were usually confidential. The Minister, despite having his doubts, allowed it to be published because of the general interest in this case. (Falk 1877c, 4) The Faculty had applied for this permission one day before. (Tobler 1877b)

inaccurate, and his autobiography, significantly titled *Cause, Life and Enemies* (1882), written just four years later (iv), is a good counterweight to present his own perspective. It is used here accordingly, together with his other relevant writings and some tertiary accounts. However, this investigation is only meant as a preliminary sketch, staying close to the case and its files as such; in order to do the subject full justice, a monograph would be required.

I The Background

1. The University of Berlin

In the 1870s, the Royal Friedrich-Wilhelms-University of Berlin was not only the leading academic institution in Prussia, but also in the newly-founded German Empire, and certainly one of the best, if not the best, in the world at all. More: as the late Thomas Nipperdey has argued, "The Prussian university has been one of the few world-historical achievements of Prussia whose rank is unchallenged until this day. Since the founding of the Berlin University in 1819, it had become the prototype of the modern University, from Baltimore to Tokyo to Jerusalem." (1986, 140; see 155)

The University was headed by a Rector and a University Council; the supervising governmental institution, which had ultimate control, was the Prussian Ministry of Culture. Much of the power, however, lay in the hands of the faculties. A faculty in Germany is an administrative unit on the level between the University itself and the institutes or Chairs; in the 19th century, there were no departments.⁴ The faculties were headed by a Dean, elected every other semester by and from among the professors holding chairs. The faculty of philosophy was one of the four classical ones and generally included, in the 1870s, both what we would now call the 'hard' sciences (excepting medicine) and the humanities (including what are now the social sciences). In Berlin, from the beginning, the Faculty of Philosophy had been the core of the University. This was an intentional move against the older institutions (theology-based or narrowly judicial in focus) as well as against the Napoleonic concept of the polytechnic. (Nipperdey 1986, 141)

This is not the only difference between the German and many other university systems. In the former, associate and assistant professors did and do not exist, nor does an equivalent. There were and generally are what I just called (full) professors with a chair (the latter also being a structural unit), the so-called *Ordinarien* or *ordentliche Professoren*. There were a few *Extraordinarien* or

⁴ In most German states, the Faculties were dissolved, together with Chair-tied institutes, during the 1968/72 university reforms in favor of departments, which were (mistakenly, as it turned out) taken to be more efficient and more democratic.

außerordentliche Professoren, full professors without a chair and also without much administrative or academic influence.

At a given university, there were a specific number of chairs with specific descriptions of fields. One could not be promoted, say, from *Extraordinarius* to *Ordinarius* because of some additional publications, as would be possible in the United States. Rather, one would have to be called – it was impossible to apply – to a vacant chair by the university. It was good tradition never to call people to chairs who were already employed by, or recent graduates of, the university in question in order to combat nepotism (the so-called *Hausberufungsverbot*).

Since the late 1840s, in the case of a vacancy, the faculty, i.e. its council, consisting of the *Ordinarien*, would rank the possible candidates and submit a list (later usually of three) to the Ministry of Culture (there were no non-state universities in Germany at that time), which would usually, but by no means always, select the top candidate. (See Roellecke in *Handbuch* 1996, 28) Sometimes, it would even appoint someone whom the local faculty did not want at all. (Cf. Helmholtz 1877b, 207) The Prussian Ministry of Culture had a track record of liberal reform and of filling chairs on the basis of quality alone, in a "benevolent-authoritarian" way (Lenz 1918, 384–385; Nipperdey 1986, 151, 147, 152–153), even integrating and protecting members of the political opposition. (152–154) The activist role of the Ministry in all aspects of science policy would increase from the early 1880s on under the guidance of the new Head of the University Division, Friedrich Althoff.

2. The Privatdozent

However, in order to be eligible for a call at all, from about the beginning of the 19th century, it was not sufficient to hold a doctorate. Rather, another qualification was – and usually still is in most fields, but probably for not much longer – required which had a dual nature: it was in one sense a degree, and in another, a permission. (Cf. Schmeiser 1994, 37, esp. n. 14) This qualification is called the *Habilitation*.⁵ It consisted of the submission of a habilitation thesis, either cumulative (i.e., consisting of previously published material) or a long monograph, and the acceptance of this by the faculty, and then, technically as an added act, of a probationary lecture and the subsequent bestowal of the *venia legendi* (literally, "permission to read") for a field and usually also for specific sub-fields. The status one would then obtain was that of *Privatdozent*. (See Schmeiser 1994, 30–31; generally Busch 1959; cf. Köstlin 1987, 124)

With these came the right, usually also a minimum duty, to read, i.e. lecture, in the university granting them. (Cf. Köstlin 1987, 123–124; Scheven in *Handbuch* 1996, 368) *Privatdozenten* were completely non-salaried, although in 1875

⁵ Cf. generally Maurer in *Handbuch* 1996, 779–794. The University of Berlin had, incidentally, pioneered its institutionalization; Schmeiser 1994, 30; Busch 1959, 1, 21–23.

a fund for some very limited stipends was created in Prussia. (See Busch 1959, 113–114) *Privatdozenten* did receive lecture-fees from the students, which were a substantial part of the income of the chairs also, but as the former did not have the right to examine, most students would mainly attend the lectures of the *Ordinarien.*⁶ In practice, as Dühring put it later, "a *Privatodocent* is generally a zero". (1904, 109) The status of *Privatdozent* was (and is) very frustrating, because one had an unstable existence with an uncertain future, always close to bankruptcy, especially if one had not inherited or married some wealth. Georg Simmel rightly called it a "purgatory."⁷

Some of the *Privatdozenten* received a call right after the *Habilitation*, some after rather a long waiting period – some, never. As Max Weber pointed out, to choose the scholarly career was (and is) to some extent a gamble. (See Schmeiser 1994, 17, 64–65) Especially those who were scholarly, personally, or politically controversial, odd, or otherwise disadvantaged, and of course also the worst ones academically, simply did not receive a call. They could then spend their entire lives as *Privatdozenten*. Generally looked down upon by students and professors alike, they often built up a strong hatred against those more successful. There is almost a stereotype of the embittered eternal *Privatdozent* in German academic folklore.

Comparable to a doctorate, the somewhat degree-like *Privatdozenten*-status (as well as the *venia*) did not expire and could generally not be revoked; it only ended with a call or not at all. (See Schmeiser 1994, 36) For extreme cases, the statutes did stipulate a possibility to revoke, the *Remotion* (the opposite of *Promotion*; on today, cf. Scheven in *Handbuch* 1996, 368), but this instrument was hardly used until the time of the Nazis.

3. Eugen Dühring

Except among specialists in the history of his fields, Eugen Dühring (1833– 1921) is, if at all, still known today for the same reason as the erstwhile Hamburg head pastor Johann Melchior Goeze: one much more famous than he not only wrote a book against him, but that book became very well known, and more importantly, he was named in the title.⁸ Friedrich Engels' (1820–1895) *Anti-Dühring* of 1878 is, after all, a significant work, not because of the topical and time-bound polemic against Dühring as which it was written, but because

⁶ See Schmeiser 1994, 35, 40-41; Dühring 1882, 153; Döll 1893, 3; however, Helmholtz 1877b, 206, ascribes this habit to "the weaker natures among the students" only.

⁷ Quoted in Roß 1996; on the productive aspects, see Nipperdey 1986, 147; Schmeiser 1994, 37– 38; Helmholtz 1877b, 206-207; generally Busch 1959, 41–42.

⁸ The reference is to Gotthold Ephraim Lessing's Anti-Goeze of 1778, "the only continuously impactful polemic of German literature." (Hildebrandt 1980, 112) Ironically, Lessing, the author of Nathan the Wise, the most eminent German play promoting religious tolerance, was perhaps the German writer Dühring hated most. (See Dühring 1881b)

here the author, in cooperation with Marx, for the first time develops 'Scientific Socialism' as a doctrine. It is indeed "perhaps the most comprehensive and systematic statement of their ideology ever issued by the collaborators".⁹ Marxism-Leninism was one of the two or three key ideologies of the current century, and when Dühring died, the *Anti-Dühring* was part of the basis of the ideology in the largest country in Europe.¹⁰ One should also not forget that between 1870–1875, Dühring's following among the German radical left, especially Social Democrats and particularly in Berlin, was strong indeed.¹¹

For many scholars, however, Dühring was and is interesting not only, or even not mainly, because of Engels' book. His work in philosophy, economics, social thought, and the history of science, especially of physics, is not without some importance, although decidedly iconoclastic and to a large extent outright odd. In fact, Dühring was so "uncompromisingly independent" that it does command some respect for many. (Albrecht 1927, 20) As with much iconoclasm, his earlier writings are to some extent an entertaining read,¹² even his history of mechanics, so that one could say that "I don't agree ... but that doesn't alter the fact that it was enormous fun" (Crispin 1980, 193) – at least up to a certain point, which we will reach below.

As a philosopher, Dühring was a positivist extremist,¹³ but this is a philosophy that had its formal rights during Dühring's time, and can still find

- ⁹ Adamiak 1974, 109; see Kirchhoff 1978, 1409–1410; Engels 1885 in 1948, 7; McInnes 1968, 518.
- ¹⁰ I doubt, however, that the book is or even was "a work readily familiar to most students of modern political thought." (Adamiak 1974, 98)

What is rarely noted is that the fact that Engels' book is still known today at least partially hangs on the brilliance of both titles: Anti-Dühring is good; Dühring's name is so much linked with it that one would almost wish the existence of an anecdote in which someone would have greeted "the blind philosopher" in the street one day by saying, "Guten Morgen, Herr Anti-Dühring!" But better still is the original title, almost untranslatable into English: Herrn Eugen Dühring's Revolution in Science (quoted in McInnes 1968, 518) really does not do it justice at all. And while the title is a parody of a serious work by Dühring (on Carey; see Adamiak 1974, 98 n. 1), it shows very cleverly how minor Dühring was in Engels' opinion.

The English text is available on the web (Engels 1999); the title there is just Anti-Dühring, which has the advantage of requiring no translation.

- ¹ See "Vorbemerkung" 1948, v; Adamiak 1974, 104, 106; Albrecht 1927, 26–27. It was because of this and his harsh critique of Marx that Engels' reply was thought to be necessary ("Vorbemerkung" 1948, vii, ix); actually, he wrote the *Anti-Dühring* very reluctantly and as a matter of duty only. (Engels 1878 in 1948, 2; Adamiak 1974, 107)
- ¹² Just as an untranslatable example: Die "schamlose Art ..., in welcher mich Herr Marx durch die Larve seines Hausfriedrich, nämlich eines ehemals arbeiteranherrschenden Fabricanten Names Friedrich Engels, verleumderisch und beschimpfend, so verlogen als möglich, anhegeln und anflegeln liess." (Dühring 1882, 190)
- ¹³ A small and handy sketch of Dühring's philosophy, unfortunately not always accurate, is in Zweig 1968, 426; see also Kruse 1959, 157.

protagonists today, especially in its folk version. (See also Lessing 1922, 21) In social theory and economics, Adamiak has pointed out that "Dühring's insistence on decentralization contrasted sharply with the centralization advocated both by Marx and by the Katheder Socialists". (1974, 103) For some, this may sound as timely today as his affinities to and defense of List and Carey. (See Albrecht 1 *et passim*) Altogether, however, only Dühring's most religious followers would argue that, e.g., his first book on natural dialectics is "more than just on the level of Kant's Critique of Pure Reason" (Döll 1893, 1); and that his "life and work will doubtless still after 100 years engage the outstanding Germans" (Lessing 1922, 42) seems unlikely indeed. Yet, the truly believing Dühringians would argue even a decade after his death that he had been "the greatest of all historical human beings." (*Der Ruck* 1933, headline; 1934, headline)¹⁴

Dühring also holds a place in the history of women's emancipation, especially with his famous treatise on higher education for women. (1885) Written during a time when in Prussia they could not attend the University, not even the *Gymnasien*, it was one of the publications which would lead to his remotion, although not because of its women's rights argument. It is clearly one of the most sophisticated treatments of its age and kind. (See esp. 1–11) Dühring is suggesting to move strategically, but he believes in the full, unlimited equality of women that should, eventually, be realized. (2–3; but see Lessing 1922, 39) His story of great but suppressed women scientists, and its explanation (Dühring 1885, 8–9), as well as the problem of women in typical women's occupations (10–11), could have been written 100 years later with hardly a word added or taken away. Dühring admittedly argues for women educating women, but he uses reasons that feminists apply to justify women's colleges in the United States today as well. (23–26, 34)

But in the second edition at least, even this essay is marred by anti-Semitism (see, e.g., 1885, 7, 41, 72, 77–78, 81), which makes Dühring's writings today more unpalatable than anything else. In fact, what strikes the reader today when reading Dühring's oeuvre is the "foaming fool" as whom Friedrich Nietzsche caricatured him in *Thus Spoke Zarathustra*. (Albrecht 1927, 10; Lessing 1922, 25) We witness a person who ridiculously and insanely attacks about everything and everybody, so that Dühring certainly, and without hyperbole, qualifies as a medical case.¹⁵ Dühring hated, despised, and disparaged Bismarck, Buddha, Dante, Einstein, Heine, Ibsen, Jesus Christ, Kant, Marx, Nietzsche, Owen, Plato, Saint Simon, Schiller, Shakespeare, Spinoza, Strindberg, Tolstoy, Richard

¹⁴ "Eugen Dühring? The greatest of all historical human beings. Why? Because he cleared the past, mastered the presence, and made way for the coming millennia." (*Der Ruck* 1934)

¹⁵ See Kruse 1959, 158; Cobet 1973, 21; "Vorbemerkung" 1948, xx; Adamiak 1974, 108, 111–112; Mogge 1977, 9, 15–16; Zweig 1968, 426–427; but also Dühring 1904, 120–121, 122–123.

Wagner, and most of all G. E. Lessing and Goethe, to name but a few. (See Lessing 1922, 14–16) His anti-Semitism is only one part of it (see Cobet 1973, 18), but in the light of German history by far the most disgusting and unpardonable one. Thus, one would be predisposed to accept his remotion as justified, not even knowing the case.

However, apart from his anti-Semitism, his rantings are much more subdued and almost conventional in his publications before 1875. This would be understandable if we followed Dühring's best biographer Gerhard Albrecht, who in a sympathetic yet critical book (1927)¹⁶ suggests dividing Dühring's life into three periods, *viz.* until 1867, 1867–1875, and from 1875, the latter being a "period of ruin". (17–18) And yet, Dühring's anti-Semitism is obvious and intense already before 1875, if more moderate in tone, such as in his *Course of Philosophy* of 1875, although it indeed culminates in his 1881 *The Jewish Question as Race, Moral, and Cultural Question.* (1881a; 6th edn. 1930) But already the *Course*, with its insistence on racial, rather than religious, anti-Semitism,¹⁷ and certainly the later works, remind one less of the Stöcker movement than of the time 65 years later.¹⁸

"Entjudung is the task," states Dühring in 1881 (119), after having pointed out how bad and inappropriate tolerance towards the Jews really is. (96–108, 117) Although he puts forth certain policy recommendations, such as establishing special laws and regulations with the aim of "diminishing of the Jewry in population number and wealth, as generally in the participation in state and society" (117–118), these are only meant as temporary measures against a complex, basic phenomenon. (157–158) According to Dühring, the Jews can not be "changed" or "improved" (111–112), and as neither deportation nor ghettoization are practical, because they would form a mere shift of the problem and the Jews would come out on top again anyway (109–111), one wonders how the task of "*Entjudung*" could have possibly been met.¹⁹

Still, Dühring's anti-Semitism was never as much as alluded to during the remotion procedure, although the *Course*, for instance, had apparently been out for some months. (See Dühring 1875, iv) The time of his remotion forming the first peak of racial and political anti-Semitism, especially prominent in Berlin (see Rürup 1985, 94–95; Jochmann 1985, 116; Mogge 1977, 13), Dühring's

¹⁶ As a biography must be; see Drechsler 1995b, 219. Only Albrecht's excuses, if very moderate, of Dühring's anti-Semitism seriously mar the book. (See 1927, 24, 32) Döll's book (1893) is too enamored with Dühring to be of much use.

¹⁷ Dürhing 1875, 390-394; see 1881a, 1–4, 116–117; after all, Dühring did not think much higher of the New than of the Old Testament. See also Cobet 1973, 19.

¹⁸ This comparison is not intended to make Adolf Stöcker's "christian-social" form of anti-Semitism sound harmless; the opposite is the case. Rather, it is meant to underline the extremity of Dühring's views. For the views of Stöcker around 1880 on the subjects Dühring addresses, see Stöcker 1890, 361–382, 419-426, 485–494.

¹⁹ On Dühring and Nazism, see briefly Cobet 1973, 20–21.

statements in this area would have hardly made him an outsider by themselves. More importantly, Theodor Lessing (1872–1933), one of the most eminent theorists of Jewish self-hatred (cf. Volkov 1986, 10–11), himself later removed from the University and eventually murdered by the Nazis,²⁰ wrote the most outstanding literary work concerning Dühring, *Dühring's Hatred* (1922), in which he so hauntingly and powerfully explains the psychological causes for the tragedy of Dühring's life and madness that one is tempted to reconsider any quick harsh judgment. (See esp. 12–14) After all, Lessing says, he was "the last of the time and level of Schopenhauer and Nietzsche, Germany's most dogged will and sharpest head." (11) And he, too, emphasizes how the older Dühring ruined, with his vile emendations, the brilliance of the younger one's books. (28)

Thus, while one would actually not be inclined to be fair (the poor man's word for just, as George Stigler said), perhaps one has to be for this investigation. In order to judge the events of 1875 and 1877, it would be better to only look at Dühring's writings *before* 1875 – at least until the question of legitimacy arises. This is a highly problematic matter indeed, and Dühring would very rightly be fired today from any *Privatdozentur* would he state now what he said after and even before 1875. Nonetheless, as the motto of this essay implies, Dühring's remotion might have been illegal or illegitimate, or both, despite him not being an attractive character in our eyes at all.

And only such an approach can keep us from confusing cause and effect. The horrid impact which complete blindness, coming at age 28, must have had on Dühring is easily imagined. (Albrecht 1927, 5–6; Lessing 1922, 21, 40) That this might have been the psychological basis of his mistrust (10), which was increased, first, by a report he had written on the order of Bismarck having been published under another name (although he won the subsequent court case; 14, 15–16), and then to clinical conditions especially during the years after his remotion (10), is hardly an absurd theory. It seems arguable that – his anti-Semitism for a moment apart – all one sees before 1875 is a highly controversial, occasionally odd and overly sharp, original scholar whose unorthodox evaluations attract both students and book-buyers (14–15; see Cobet 1973, 21–22) as much as they anger his colleagues; in sum, kind of a blind feminist Schopenhauer.

²⁰ After a failed attempt at the *Habilitation* in Dresden, Lessing succeeded – on recommendation of Husserl – to become *Privatdozent* of Philosophy at the Technical University of Hanover in 1908. In 1922, he received an *Extraordinariat*, but in 1925, as a social democrat, pacifist, cultural critic, and leading theoretician of Jewish identity, and after publishing an essay *i.a.* critical of Hindenburg, an anti-Semitic, right-wing student mob agitated, and the Rector applied for a disciplinary investigation, against him. In 1926, Lessing gave up the fight for his rights but was able to convert his teaching position into a paid research assignment. Only in 1933 did he think it safer to emigrate to Bohemia, where a few months later he was murdered by local Nazis. (Lacina 1985; Volkov 1986, 11; generally Wollenberg 1997)

II The Cases

1. 1875

According to Albrecht, Dühring had habilitated – both in State Sciences and in Philosophy – mainly in order to become more reputable as a writer, which was his real goal. (1927, 11) He was quite successful as a writer and as a lecturer, being able to live on the combined income of both activities. (14–15) By that time, he had almost become an "eternal" *Privatdozent*, being seven years older than the average called one.²¹ He had never been able to obtain a call due to, it is probably fair to say, his crankiness and his odd views, in spite of even Bismarck having pushed for him at one time. (16; cf. Dühring 1877b, 16) However, he was very popular with the students and the general public. (Cf. Lessing 1922, 19–20) Thus, it appeared predictable that Dühring would remain a publishing *Privatdozent* for the rest of his life, which as it turned out was in fact not even half over yet. In 1875, however, the Faculty applied for Dühring's remotion, accusing him of intolerable attacks on his own colleagues and his own University.

The altercations had begun when Dühring had written very negatively about Socialism of the Chair (*Kathedersozialismus*) in his *Critical History of Economics and Socialism*. $(1871)^{22}$ Later, Dühring would even call the school "basically only an insurance firm for mutual PR and university promotion ... a combination of Pietists' economics with old reactionary police-statehood ... the *Tartüfferie* of the so-called Socialism of the Chair." (Dühring 1882, 158) It is important to notice that around this time, Socialism of the Chair was regarded as an opposition movement against the prevailing official socio-economic ideology; that would change only later.

Dühring's account included some very critical remarks about Adolph Wagner (1835–1917). Wagner, who since 1870 held one of the State Sciences chairs at Berlin, was one of the leaders of State Socialism (*Staatssozialismus*), a form of Socialism of the Chair. (See Drechsler 1995a, 1997)²³ He was a very dynamic, indeed belligerent character who did not take insults lightly and who never phrased things diplomatically. (See Bahr 1894, 71–73) Twenty years later, Wagner would so enrage an industrial-conservative member of the *Reichstag*, likewise with a defense of the Socialists of the Chair's influence within the

²¹ In 1875, Dühring was 42 years old, and between 1870 and 1879, the average age of called German professors in the humanities was 34,9 years. (Schmeiser 1994, 380; see also Dühring 1882, 153)

²² While this is in all likelihood my own fault, I have not been able to find this passage in Dühring 1871. On the usually given p. 552, there are only unfriendly remarks about Ferdinand Lassalle.

²³ I do not agree with Albrecht (1927, 17) that the Socialists of the Chair's "compromising" attitude must have automatically offended Dühring, because the Socialism of the Chair, especially the State Socialist variant, is not a compromise at all, but rather a genuine Third Way.

German universities, that this deputy challenged him to a duel. (Wagner did not categorically refuse, but it was never fought. See Frevert 1991, 235–236; 330 n. 12) Ever since coming to Berlin, he had not appreciated Dühring. (See Wagner's letter to his brother Hermann, 16 October 1870, in 1978, 84–85, 85) Wagner would remain one of Dühring's most disliked figures. (Lessing 1922, 29)²⁴

As Albrecht remarks, Dühring had in fact insulted Wagner personally, and the latter's reaction had therefore been predictable. (1927, 17) Emphasizing the insult rather than any scholarly disagreement, Wagner answered Dühring both in his lectures – of which he notified Dühring in a letter as well (Wagner to Dühring, 2 December 1874, in Wagner 1978, 130) – and in the *Berliner Börsenzeitung* of 8 December 1874. In its most severe passages, he refers to Dühring's "self-over-estimation and embitterment, increased to insanity," calls Dühring's claim that Wagner owed his career to being the son of a professor "an impudent coarse lie," and ends by declaring "all those insinuations publicly here, as well as in my lecture, factually untrue, brazen and spiteful suspicions and libeling; in other words, a despicable infamy." (Wagner 1874)

Dühring replied in the same paper one week later (1874; see 1882, 162–163), and even more harshly, although he later stated that he did not mention the dispute in his lectures. (See 158–159) He starts by saying that Wagner "once again gave in to his characteristic itch to produce himself at any price in a scandalous way and with his well-known ineptitude," a sentence typical of the entire reply's tone. Saying that Wagner's letter was "answering a call of nature" and insulting Wagner's dead father as a bad scholar and Wagner himself as a "*Professorensöhnchen*", he concludes: "But from the infamy which has poured out of Mr. Wagner this time, and from all his other dirtiness and consequences of his vomiting, I remain at a distance in order not to soil myself." (Dühring 1874)

The *Statutes* of the University, § 52, explicitly state that "a *Privatdozent* may receive a warning or a reprimand (*Verweis*) in the case of slighter offenses (*Anstössigkeiten*) by the Faculty, and in case of repeated or graver offenses, it can apply for remotion at the Ministry." (Quoted in Falk 1877b, 30) Dühring was to call this a superannuated law of 1838 (Dühring 1882, 160) and to claim that the Ministry was not a genuine second level, because it judged on the basis of a Faculty report. (172; 194) However, the bestowal of the *Privatdozentur* was by that time (again) entirely a university matter to begin with; it was only announced, rather than submitted for approval, to the Ministry. (Roellecke and Maurer in *Handbuch* 1996, 28 resp. 781; but see Busch 1959, 114–115) What is noteworthy, therefore, is the comparatively complex procedure leading to the remotion, obviously a check against impulsive or personal decisions by the

²⁴ "Most of all he hated the three Wagners: Hermann Wagner ..., Adolph Wagner ..., and Richard Wagner ... Not without reason, he wrote, had Goethe called the miseducated, dry hypocrite [in *Faust*] exactly by the name of Wagner." (Lessing 1922, 29)

Faculty. In any case, the Faculty of Philosophy in this case did judge Dühring's behavior, especially the newspaper reply, as a grave offense and accordingly applied for his remotion.

The Minister of Culture at that time was Adalbert Falk (1827–1900, in office 1872–1879), who is mainly known for his role in the *Kulturkampf*, Bismarck's fight against the Catholic church in Germany.²⁵ (The Ministry of Culture had responsibility for all matters concerning religion as well.) In this battle, Falk was more extreme than Bismarck, for instance regarding civil marriage, and he acted very independently from the Chancellor. (Bismarck 1921, 152, 164; Jacta 1972, 222) After the reconciliation between Bismarck and the new Pope in 1879, and, as Bismarck claimed, intrigues at Court against him, especially by the pro-Catholic Empress, Falk would resign (see Bismarck 1921, 153–154), becoming first a member of the diet and then a high judge. (See Foerster 1927; Skalweit 1961; also Hörtz 1994, 39) Falk was a very active man, and there can be little doubt that in such a high-visibility case he would have decided by himself. On the other hand, he would have also been unlikely to yield to outside pressure in a matter such as this.

But in the Spring of 1875, the *Kulturkampf* criminal laws against the clergy who had not obeyed the previous ones were being passed, and these had been written by Falk. (Franz-Willing 1981, 1435, 1436–1437; Jacta 1972, 222) This was the most important and controversial domestic policy matter during the early years of the Empire, and it may be no over-speculation to say that Falk probably did not want to open another front with the Dühring case. Also, Wagner suspected the Minister of not being friendly towards Socialism of the Chair generally or towards himself specifically.²⁶

In fact, Falk saw blame on both sides, and Wagner was asked to defend himself in writing. (Falk 1875, 8; see Wagner to his brother, 29 January 1875, in Wagner 1978, 131) On this basis, the Minister determined that, while Dühring was guilty of a grave offense, Wagner was not free of blame either, and the latter received a disciplinary warning on the basis of the *Law Concerning the Official Misconduct of Non-Judiciary Civil Servants*, a fairly serious admonishment. (See 17 March 1875, 133–134, 133) In a letter to his brother, Wagner conceded that everyone shared the former's opinion that, while he was essentially right, he had attacked Dühring in an inappropriate form. (22 February 1875, 133) Dühring later stated that the Faculty failed here with its choice of person if it wanted to get rid of him (1904, 111; 1882, 158–159), although he at the same time conceded that these were stronger points than there would be in 1877. (178)

²⁵ A surprisingly good popular description of the *Kulturkampf*, if biased against Falk and Bismarck, is in Jacta 1972, 215–248. Somewhat ironically for the present context, the very first incident of the *Kulturkampf* had been a conflict about academic freedom, namely the right of Old Catholics to continue teaching at the University of Bonn's Catholic Faculty of Divinity; 218.

²⁶ Wagner's letters to his brother of 17 March 1875, in 1978, 133–134, 133; of 4 February 1877, 143; of 22 June 1877, 146–147, 146; and of 17 March 1878, 165–167, 166.

Wagner felt, on the contrary, that he had not been supported enough by his colleagues. (Letter to his brother, 9 May 1877, in 1978, 146) He was so upset by the warning that he even considered quitting and leaving for Austria (17 March 1875, 133–134), but in the end he remained in Berlin.

Dühring was not remoted, but rather, the Minister left it "to the Faculty to issue him through the Dean a grave reprimand, under penalty of unrelenting remotion in case of repetition, because of the coarse violation which he has been guilty of through the spiteful and insulting character of his polemic against Wagner." (Falk 1875, 8) Dühring would later claim that the result had been a compromise, reached through an intermediary, yet in which he was not dealt with fairly, as the agreement had been that both he and Wagner should have received the same kind of reprimand. (1882, 160–162) But even Albrecht calls the Minister's decision fair. (1927, 17) From today's perspective, it appears that this was indeed so: Dühring's note is the much harsher one, and he is factually in the wrong as well, but Wagner's is very severe also, and it was he who had started the affair.

The Dean of the Faculty was at this time the Classicist Eduard Zeller (1814– 1908), one of the most eminent scholars of his time and one of the great historians of Greek philosophy. (See Zeller 1919–1923) Dühring later called him "a professor of philosophy named Zeller." (1882, 160) His call to Berlin had been a major feat and a personal project and accomplishment of the Minister of Culture. (Lenz 1918, 355–356)

On 23 March, Zeller ordered Dühring to appear in the presence of a Ministry official²⁷ and issued to him the grave reprimand. (Zeller et al. 1875) The language is harsh, although not out of line if compared to the wording by the Minister. Dühring is blamed for an unprovoked attack against Wagner and the German universities as a whole, contrary to the truth, in his book; the newspaper article is called a "coarse indecency which reveals the complete disregard for what any educated person, but especially a representative of scholarship and a teacher of the academic youth, owes to himself and to his position." (9) Zeller points out that such behavior would have justified immediate remotion; it would be sheer clemency on the part of the Ministry if for now Dühring was allowed to stay with the University. This decision was based on the expectation, Zeller said, that Dühring would henceforth exclusively concentrate on research and teaching. (9–10) He declared to Dühring "that any further occurrence of similar offences will have your unrelenting remotion as a consequence." (10)

Dühring answered that he regarded this reprimand in form and contents as objectionable and that he reserved the right to further protests, which – according to a note in the *Aktenstücke* – did not occur. (10) Later he stated that he had immediately claimed that there had been factual lies in the reprimand, but that Zeller had refused to include this claim. (1882, 163) However, Dühring

²⁷ The ministry official, a *Kanzleirat* Laury, I was not able to trace; he is not in Lüdicke 1919.

undoubtedly confirmed by signature that the reprimand had been read to him. (Zeller et al. 1875, 10)

2. 1877

Two years later, in 1877, the Faculty decided that with two new publications, Dühring had committed precisely the same kind of offence again. The incriminating books were the second edition of his award-winning *Critical History of the General Principles of Mechanics* (1877a) and the alreadydiscussed small pamphlet on *The Way to Women's Higher Professional Education and the Way of Teaching at the Universities*. (1877b) We know from a letter by Adolph Wagner that it was Eduard Zeller who had officially brought the matter up and had the Faculty council decide on it. (Wagner, letter to his brother, 9 May 1877, in 1978, 146)

The current Dean, the Swiss-born Adolf Tobler (1814–1908), who since 1867 held the newly-created Chair of Romance Philology, was an eminent scholar, a founding father of the positivist, historic-evolutionary direction of his field. (Lommatzsch 1965, 4–5, 7–9) Working for half a century on his *Altfranzösisches Wörterbuch* (Tobler and Lommatzsch 1955–1998), Tobler never finished it because, as has been argued by one of his successors, he was overly self-critical and perfectionist in his work. (Lommatzsch 1965, 10–11. This immense enterprise, under its fourth generation of editors, was apparently completed only last year.) Even apart from this *magnum opus*, with more than 600 other items to his name, Tobler was a very successful author (4–6), and he is depicted as "a strong and upright personality." (6)

Tobler asked Dühring to justify himself regarding four concrete passages, in line with the old reprimand: a passage in the latter book that insulted the German professoriate as a whole, and in the former, which Dühring had listed as the textbook for a *gratis* lecture-class that semester, three passages that implicitly or explicitly insulted members of his own Faculty. (Tobler 1877a; Dühring later claimed that concrete accusations were entirely missing; 1882, 172) These four passages are, in the *Aktenstücke*, given as footnotes 1–4 on pp. 11–12 (the passage on the German University was cited in full later in the remotion itself by the Minister; Falk 1877b, 31–36). A comparison with the originals shows that the quotes are accurate;²⁸ nor are they 'pulled out of context'. The following segments turned out to be of special interest:

1. The mental corruption which is expanding in the darkness of unfree authority administration is much more intensive than the material one. The degrading of

²⁸ According to Tobler 1877a, 11, and *Actenstücke* 1877, 11–12, the indicted passages are as follows: no. 1 (quoted only in short, with a reference to the full citation by the Minister) = pp. 37–39 in the 1st edn. of Dühring 1885 (the full segment, much sharpened, is pp. 34–53); no. 2 = pp. 444–445 in Dühring 1877a (actually, in n. 1); no. 3 = p. 460 (also actually n. 1); no. 4 = p. 529 (actually, pp. 529–530).

the sciences to a mere tool of guildish food- and provision-interests is, after all, something else... Thus, since the 12th century, the universities ... more and more fell into ruin and significantly hindered the progress of science ... (11 n. 1)

2. Utterly funny was that the mere participation in suchlike vague discussions, which in addition was not even particularly original but trivial and flawed, could be confused with the finding of a thought and with the discovery itself. ... Such a participation basically was Mr. Helmholtz' treatise, On the Conservation of Power (1847), in which ... in spite of the dealing with several works of little significance, R. Mayer was not mentioned. (12 n. 2) [This refers to the Heilbronn doctor and lay physicist Robert Mayer who had discovered the First Law of Thermodynamics but who had received little credit (more about this below).]

3. It is not surprising that the vaguely a bit philosopherizing physiological physics-professor (der unklar ein wenig philosophelnde, physiologische Physikprofessor) Mr. Helmholtz neither in this case let the opportunity pass to participate in the discussion and to comment applaudingly to the piquant nonsense... (12 n. 3) [This refers to a discussion about Geometry.]

4. ... the University of Berlin ...never had amongst its full professors [of Mathematics]... any name whose sound had been more than a mere echo of the professorship and of its influence on job placement and similar patronage. (12, n. 4; repeated in Dühring 1904, 110; 1882, 180–181)

On 27 May, Dühring answered the Faculty, and not politely either. He points out, first of all, that he does not remember the reprimand of 1875 very well – if at all, then only because of its offensive language –, and that there had also been some rebuke of his opponent. (1877b, 13; he elaborated on this charge in 1882, 162; see 162–163) He then proceeds to emphasize the plagiarism case against Helmholtz, i.e. against the latter's claim for a "parallel discovery" of the "conservation of energy" (14), saying that Helmholtz wants to silence him – also with the help of Mrs. Helmholtz – because he had pointed at the scandal. (14) Dühring further complains about the "completely normless situation" of the remotion procedure (15–16; see 1882, 160). Under these circumstances, he claims, there is no academic freedom for *Privatdozenten* at all. He also says that if he had wanted to be really personal, this would have looked different from "those few lines about Mr. Helmholtz." (1877b, 16) The negative phrases against the University were tamer than called for by the situation, too. (17–18; see 1882, 167)

Upon receipt of this letter, the Faculty, in a letter of 8 June signed by Dean Tobler and the Historian Karl Wilhelm Nitzsch, turned to the Minister, now firmly applying for Dühring's remotion because of the seriousness and repetition of the offenses which he had been explicitly warned not to commit. (Tobler and Nitzsch 1877)²⁹ The defense is said not to supply any valid excuses or explanations. (23)

²⁹ Wagner, incidentally, had not participated in the Faculty meetings concerning the second remotion. (Tobler and Nitzsch 1877, 26; Wagner, letter to his brother, 9 May 1877, in 1978, 146)

They sum up: there is the insult against German universities and their professors in the booklet on women's education, in which Dühring disparages the community to which he belongs. (20-21) Then, there is the insult or libel against members of his own Faculty, particularly serious because they occur in a book that is used as a textbook. (21-22) First, this concerns the Mathematics professorship. $(22-23, 24)^{30}$ Equally bad are the attacks against Helmholtz, both insulting and libelous. (23) Dühring's claim that he had not received the 1875 reprimand is refuted by saying that he had never asked for it (23-24) and that in any case, it would be hardly imaginable that he would not remember the gist of such a very serious admonition. (24)

Regarding the critique of Helmholtz, the Faculty points out that the defense makes Dühring's case even worse because he admits that it was not a scholarly matter of dispute at all but rather meant as a revenge for an allegedly suffered injury, Dühring's removal from teaching classes in the Women's Lyceum.³¹ The application for the remotion is emphasized again in the strongest terms. (25–26)

A letter and additional statement by Helmholtz were enclosed (Helmholtz 1877a), in which the latter stated that he had given full credit to Mayer since 1854, twenty years before Dühring ever did (27); several passages from public lectures since the 1850s, contained in a 1871 publication, are cited in which he gives Mayer full credit. (27–28; see 1871) The declaration added that neither Helmholtz nor his wife had ever tried to have Dühring dismissed from the lyceum (1877a, 28–29), a statement Dühring later called "cheap, indeed funny." (1882, 198)

Falk had had it with Dühring, and in mid-1877, the *Kulturkampf* was not in a particularly hot phase anymore, either. The Minister, "a strong and pronounced personality" (Franz-Willing 1981, 1444; see Lenz 1918, 354) and – according to Bismarck – a very gifted, capable and brave man (1921, 153), "felt himself to be the servant of the idea of the law, which he saw embodied in the authority of the state." (Skalweit 1961, 6) To a Hegelian *Rechtsstaat* thinker like him, expediency or politics – this was Bismarck's problem – were of little concern (see Bismarck 1921, 155), and Dühring's behavior must have been disgusting to him.³² On 7 July, he agreed to the remotion. (Falk 1877a and b)

Falk's reasoning was indeed an endorsement of the Faculty view that in 1875, Dühring had not been remoted just out of clemency. He had been put on probation, and he had failed to meet the conditions. (Falk 1877b, 30–31) The

³⁰ As this point turned out to be almost completely neglected in the subsequent proceedings, I have not dealt with it in detail either.

³¹ Tobler and Nitzsch 1877, 25; see Dühring 1882, 165–167, and in full 1885, 64–81, for his side of that story; also Wagner, letter to his brother, 17 December 1876, in 1978, 142–143, 142.

³² It is interesting that Dühring is even later not too negative on Falk, even after the latter's resignation. He credits Falk only with the "formal final decision" (Dühring 1882, 172; 1904, 122) and somehow also puts him into the 'Jewish plot' (122; 1882, 161, 178; 1881a, 142), but reserves the blame entirely for the professoriate. Dühring was not a very state-focused thinker at all, so Prussian patriotism or respect for statesmen can hardly be the reason for this.

Minister agrees with all four points the Faculty listed: attacks against the Mathematics professors, against Helmholtz, charge of plagiarism against Helmholtz, and attacks against the German universities. (31) It is not insignificant that Falk emphasizes the latter (31) and not, as Dühring claimed later, the charges against Helmholtz (Dühring 1882, 173), because for Falk, institutional insults – especially against an institution he to some extent identified with – would have been even worse than personal ones. Falk cites the incriminating passage at full length (32–36) and notes very disapprovingly Dühring's claim to have been "still moderate." (31)

The Minister comes to the result:

The academic freedom, which you claim by right for Privatdocenten, too, and which I would not be inclined to curtail, has nothing to do with statements like these. Going beyond anything appropriate, they betray in their form, not an earnest desire to promote the uplift of university life through the uncovering of allegedly existing defects, but rather the intention to make the universities, as the seats of corruption and depravity, the victim of general contempt.

The trust which is required from an employed professor as well as from the permission granted to a Privatdocent to teach at the university can no longer be given to a man who publicly makes such statements about the totality of those with whom he would have to cooperate. (36)

The remotion was issued in the strongest of ways; Dühring was not even permitted one more lecture, nor to say farewell to his students. (Falk 1877a; see Dühring 1904, 131; Albrecht 1927, 18)

III The Facts

Before we discuss whether the remotion was legal and legitimate, let us first look at the facts, i.e. not whether Dühring had said what was said he had said (he had), but whether his statements were true. This might sound like a strange approach today ("Truth... what could that be?" ... "Is it not a question of episteme?"). But if we tackle the Dühring case at all, we must take its protagonists seriously, and this means that we are dealing with a group of people who, radically different as they were from each other in many respects, were united by one view: there is a truth, and I can know it. (Actually, I think that they all believed to be factually right themselves.) Things are as they are, and we can find out, at least ultimately, what and how they are. All of them – Dühring, Falk, Helmholtz, Tobler, Wagner, Zeller (he perhaps the least), and also Engels – would have been greatly surprised to hear people talk about epistemes and relative truth. All of them (again perhaps with the exception of Zeller) believed in science and (its) progress.

Of the four passages in question, three are stated to constitute a form of insult, of disparaging one's colleagues in one's own Faculty, as well as the University, especially in Germany, as such. Insult is not necessarily a matter of fact; depending on the circumstances, one can legally be insulting by stating a fact, even if one does so in non-offensive language. The fourth passage (the second in the complaints list) is different, as here Dühring is not charged with insult but with libel, which refers to something that can, at least potentially, be proven. This is also the most complex and for the history of science by far most interesting case, and it is therefore not surprising that it was this charge that caught the public attention and that was frequently seen as the main reason for Dühring's dismissal.

1. Libel: The Discovery of the First Law of Thermodynamics

In this passge, Dühring accuses his senior colleague, the Professor of Physics Hermann Helmholtz (1821–1894; since 1883 v. Helmholtz), of stealing the priority, i.e. the discovery, of the First Law of Thermodynamics from Robert Mayer. It is the priority of discovering, very, very simply and physics-wise inadequately speaking, that heat and power are equivalent, one of the most important scientific discoveries of the century (Koenigsberger 1902, 84–85, 88) – indeed, "the event that eventually recast the entire concept of nineteenth century physics." (Mirowski 1995, 35; see 59; Caneva 1993, xv) This was a more than serious charge and hardly a "finely ironic touching", as Dühring later claimed. (1882, 173) In his "defense", Dühring had also emphasized that charge, rather than taken it back. (1877b, 14)

Hermann v. Helmholtz was one of the most eminent German scientists of his time; he was called "the Imperial Chancellor of Physics." (Hörz 1994, 41, 91; see Mirowski 1995, 43) He had joined the Faculty in 1871, turning down a very lucrative call to Cambridge, as a star already, and with strongest Royal support. (Lenz 1918, 355; Ostwald 1919, 284; Hörz 1994, 82) Helmholtz was not only a theoretician; in 1850, he had invented the ophthalmoscope, which is still in use today, as the main primary diagnostic instrument, in any eye doctor's office. (See Helmholtz 1891, 12–13; Ostwald 1919, 278–279; Hörz 1994, 76) And by 1877 already, he had received honors Dühring could only dream of, including – before joining the Faculty – Berlin's Dr.phil.h.c., several Academy memberships, and various orders and decorations, including in 1873 the *Ordre pour le mérite*. (83, 87, 91) Six years later, he would be knighted. As Adolf v. Harnack remarked in 1899, "Since Newton, nobody has penetrated the innermost of Nature as much as Helmholtz." (Quoted in Hörz 1994, 9) His reputation has not declined to this day.³³

This means that Dühring had attacked an icon of German science and society, or, to take Dühring's perspective, that a formidable figure was set up against him -a man with many friends, much power, and excellent connections. Insulting such a man clearly must have looked bad in the eyes of the Ministry (Dühring 1904,

³³ Institutionally the Helmholtz-Gemeinschaft (HGF) honors his name; it combines 16 top German centers of both fundamental and applied research; as of 1999, it has 23,000 employees and an annual budget of 3.7 billion DM. (HGF 1999)

115), and plagiarism is perhaps the worst crime to be accused of in the realm of scholarship. There had been the usual set of such strange accusations against Helmholtz already, as all great scientists attract them. Indeed, Helmholtz had been accused of plagiarizing Schopenhauer (see Hörz and Wollgast 1971, xxiv-xxvi), even by Schopenhauer himself – in personal correspondence, not in public, although it later was published –, but entirely without foundation.³⁴ Yet Dühring's charge of plagiarism in this very case was not as absurd as Schopenhauer's.

Traditionally speaking, the priority of the discovery in question here undoubtedly belongs to Robert Mayer, who formulated it already in 1842 in an essay in a major journal (*Liebig's Annalen*) and in 1845 in a book. (Caneva 1993, xv *et cf. passim*; Ostwald 1919, 71–72; cf. also Hörz 1994, 75, 94; Dühring 1882, 175) The full development appeared in another book published in 1851. (Ostwald 1919, 79)³⁵ However, the conservation of energy was also discovered, or better perhaps formulated, around the same time if a bit later and from different perspectives and differently phrased, by J. P. Joule in Britain, published in 1843 (78), and by Helmholtz himself, published in 1847. (1847; see Ostwald 1919, 268–269; 272 for all; Koenigsberger 1902, 85-88; Boring 1957, 229; also Boór 1968, col. 159) There are even more contenders, and exactly this event has been singled out by Thomas Kuhn as a *Paradebeispiel* for simultaneous discoveries. (Kuhn 1959; see also Caneva 1993, xv; Mirowski 1995, 35)

Robert Mayer had one of the worst fates of great scientists. Not only did he receive no credit for his discovery, and was disparaged as an outsider by the scientific community. For a while, he was even locked away in a lunatic asylum and treated most horribly, because everyone in his native Heilbronn, including his family, viewed him as an insane idiot with a megalomaniac illusion of being a great inventor. (Ostwald 1919, 80) This would elicit strong sympathy on the part of Dühring, illustrating the latter's views of university vs. true science and forming a parallel case to his own. (84) In addition, fate had it that the director of the asylum in which Mayer was mistreated happened to be the son of Eduard Zeller. (Lessing 1922, 33; cf. Ostwald 1919, 80)

How does the matter stand? Helmholtz' 1847 treatise, one of the key reasons for his fame (Hörz 1994, 76–77), next to being based on a discovery in its own right, is applying the law to the entire area of Physics, something that Mayer could and did not do. (Koenigsberger 1902, 86–7; Ostwald 1919, 270–271; cf. Mirowski 1995, 36–39) It was at first not well received, and it is interesting to note that in those days Helmholtz, just like Mayer, was an academic outsider and a physician, not a physicist, but later it was seen as the true starting point of the

³⁴ Hörz and Wollgast 1971, xxv; see Hörz 1994, 78; Dühring 1882, 179; Helmholtz 1877b, 27, quotes the latter but does not state that he himself is the subject of Schopenhauer's remark.

³⁵ Mayer's discovery has recently been the subject of a very thorough and detailed study (Caneva 1993), but one that unfortunately does not bring us any further in our present inquiry, because it only looks at the inner logic of Mayer's thoughts.

theory, and as far as the genuine impact is concerned, this is certainly true. (Koenigsberger 1902, 88–89) Indeed, in Helmholtz' 1847 booklet Mayer is not mentioned, but it is highly credible that Helmholtz did not then know Mayer's previous works. (Helmholtz 1891, 11; 1883, 402, 406) In the postscript to a later essay, published in 1883, Helmholtz explains the matter: he claims that Mayer's publications had appeared in odd places, strangely phrased, and that one could simply not read everything, especially arcane publications that did not appear to contain anything of substance. (1883, 407–409; see 1887b, 29–30)

It is true as well that Helmholtz had praised Mayer long before Dühring, and long before anyone else as well. (Helmholtz 1883, 402; Hörz 1994, 95) In the 1854 Königsberg lecture "On the Interaction of the Natural Powers and the Most Recent Investigations of Physics Concerned with Them" (in 1871, 99–136), Mayer receives full credit for the priority. (112, 113) And the first large-scale acknowledgment of Mayer's discovery, Tyndall's in England in 1862 – who was attacked by friends of Joule for this (Ostwald 1919, 81–82) – was translated into German by Helmholtz' wife and edited by Helmholtz (and a colleague), and it includes as the (last) appendix, i.e. in a very prominent place, a lengthy excerpt from Mayer. (Tyndall 1867, 642–650) And ever since 1854, Helmholtz credited Mayer, although not very emphatically. (Helmholtz 1883, 407; Koenigsberger 1902, 86; Hörz 1994, 94; Ostwald 1919, 275) Dühring called Helmholtz' post-1854 statements "some decades-late corner-mentions of Robert Mayer, forced by sheer necessity and even misleading." (1882, 198)

The main charge one could bring against Helmholtz in this matter is, however, not the non-mentioning in the 1847 book, or the unexcited mentions after 1854, about which more soon. The Dorpat-educated chemist Wilhelm Ostwald (1853–1932), Nobel Prize winner of 1909, "the premier physical chemist of fin de siècle Germany" (Mirowski 1995, 54), discusses, in his *Great Men* (1919), both Heinrich v. Helmholtz and Robert Mayer and comes, in this question, out on the side of the latter (on Ostwald and his project see Schmeiser 1994, 330). Ostwald emphasizes that, during the "critical years" for Mayer, Helmholtz had not defended him at all, although he must have known better. It may be that Ostwald was an interested player in the game because of his own efforts at integrated theory, and that he was not a preeminent mathematician himself either (Mirowski 1995, 54–57), but his account is for our purposes by far the most interesting and fruitful one, and – surprisingly enough – about the only one by a professional scientist we have that pays attention not only to the priority question but also to Eugen Dühring's involvement.

In a key survey report for the Physical Society for 1847, published in 1850, Helmholtz had listed Mayer's 1845 book but claimed that it did not bring anything new, contrary to his own work. (Ostwald 1919, 272–273) Ostwald calls this statement, "directly misleading" and an ethical lapse, if the only one in Helmholtz' career. (273, 274–275; see Dühring 1904, 104–105, 109, 124; 1882, 173, 175) Helmholtz' own claim that Mayer's loss was not so great, as being

unrecognized for just nine years after his first full publication was not so bad (1883, 413), rings very strange in this context.

But there is another side to this story as well. The reason for Helmholtz' later lack of enthusiasm for Mayer's discovery, and perhaps also for his early neglect, was, it seems, not envy but rather Helmholtz' genuine conviction that Mayer's discovery had been speculative and to some extent accidental, which was not how "proper" science could function. That it was later used as an example by those who argued, contrary to Helmholtz, in favor of "pure thinking" made matters even worse. (Helmholtz 1883, 401–403; 1877b, 28–29; Koenigsberger 1902, 87; but see Ostwald 1919, 87) Mayer's fault was thus that he did not prove "his thesis by means of the then sanctioned procedures of scientific research." (Mirowski 1995, 36)

True enough, Helmholtz did not achieve his results through experimentation either, but rather via mathematical analogy. (51) True, in some sense, "Nobody ever 'discovered' the law of the conservation of energy. The idea had been developing since Newton. ... Helmholtz brought together much of the previous work and gave the theory mathematical formulation." (Boring 1957, 229; see Mirowski 1995, 52) It appears that it was this formulation, the generality, and the kinematic ideas behind the concept that would turn out to be so important for the development of physics. In this sense, it does not matter that Helmholtz's solution, by later standards, was flawed as well, that the First 'Law' of Thermodynamics is usually seen today as a heuristic device, and that Helmholtz changed his own views of it over the course of his life. (Cf. 43–49)

Mayer's discovery, in Helmholtz' opinion, was in that sense parallel to another case which has been neglected until today, of which Helmholtz did not know, and which even Kuhn does not mention. During the same years, a man who is now often thought of as one of the greatest American writers and poets but hardly as a scientist, Edgar Allan Poe (1809–1849), had made the same discovery, even including the Second Law of Thermodynamics (entropy), if purely theoretically and speculatively and not backed up by any sort of experiment, and had published the results in 1848. (Poe 1997; see 1966, 1152– 1155, 1160–1161) This attracted no attention whatsoever. It does, however, support Helmholtz' perspective of the nature of scientific discoveries.

In a speech given right after the Dühring case was over, on "Thinking in Medicine", Helmholtz made the point about priorities particularly sharply. (1877b) He states that priority should not be given to the person who first publishes a discovery, because if one would publish all kinds of speculative stuff, some correct items might by accident be among them. (28–29) In addition, just because of time constraints, serious scholars could not read all kinds of speculative essays on the mere off-chance of finding some kernel of truth. (29–30) In 1883, Helmholtz added that Mayer had been "a most independent and sharp head", but that "not such a one who had achieved things which others could not have also accomplished and in fact did accomplish without his help."

(413; see also Koenigsberger 1902, 90) Helmholtz' biographer Leo Koenigsberger would add that Mayer did not know enough sophisticated mathematics to genuinely prove his thesis and was guilty of other faults as well. (87, 88–89; cf. Caneva 1993)

But while Helmholtz' general thesis is very likely quite sensible, can it be applied to Mayer? Ostwald called Helmholtz' 1877 speech in this respect "unfair" (1919, 86); Mayer himself pointed out in a review of that speech that he had indeed justified and proven his discovery, or establishment of the theory, sufficiently, and that anyway, there was hardly another practical way to determine priority except by the date of the first publication. (Quoted in Ostwald 1919, 86-87)³⁶ This is a matter of debate; Helmholtz' points are quite valid, and Ostwald might be wrong. Still, it would at least be arguable to fault Helmholtz for once in his career, because he had read Mayer's investigations by 1847 but had perhaps not mentioned them adequately. If so, then indeed his behavior had a disastrous impact, as it contributed to Mayer being seen as insignificant, and eventually to his extreme suffering. (1919, 273-275) If we follow Philip Mirowski (1995) and to some extent Caneva (1993), the question would be to a large extent mute anyway, because concepts of what was discovered, of how this relates to 'reality', and of what priority means, appear not so interesting anymore. Yet, as the interchange between Mayer and Helmholtz shows, their disagreement was over fact and method, not over theory and truth, and the consequences of the entire affair for Mayer were very real indeed.

Even Ostwald calls Dühring's attacks thus probably quite rightly "subjectively completely honest," "factually not without foundation," but "in the form and extent which he gave to them, shot far beyond the goal." (1919, 292) Indeed, to call Helmholtz' own work of 1847 a "mere participation in suchlike vague discussions" and "not even particularly original but trivial and flawed" was plain wrong and certainly insulting. And the theoretical defense for Helmholtz is quite strong. Ostwald concludes, "It is an extremely ponderable matter that this weak point in which *Helmholtz* in his younger years let himself go once had to have such long and profound consequences." (293)³⁷ Whether he

What a disgustingly petty man this Helmholtz must be, that he even bothers to be annoyed by the remarks of a Dühring, and even to such an extent that he puts the Berlin Faculty before the alternative: either Dühring is made to leave, or I leave! As if all the writings by Dühring, with all its furious envy, would even have the weight of a fart! But certainly, Helmholtz is a very excellent experimentor, but as a thinker he is not superior to D[ühring] at all. (Letter to Bracke, quoted in "Vorbemerkung" 1948, xix–xx)

Hörz, on the other hand, reports that Helmholtz "did not get involved" in the remotion (1994, 94), and Ostwald says that he "let his friends do what they did," personally neither instigating nor preventing these measures. (1919, 292)

³⁶ Koenigsberger claims that Mayer and Helmholtz got along fine personally, especially as Mayer did not claim priority over Helmholtz (1902, 90–92), but this sounds somewhat unlikely.

³⁷ We do not know to what extent Helmholtz himself pushed for Dühring's remotion. Friedrich Engels thought he did; as he wrote in a letter of 25 June 1877:

in fact did "let himself go" is a matter of one's viewpoint on discoveries and inventions, but Dühring is apparently in this case more guilty of insult than of libel, because the issue is at least a debatable one.

2. Insult

As for insults, comparatively little can be said concerning the facts. Although this is a later statement, Dühring's remark that Helmholtz never was a physicist at all, let alone a "discovering" one (Dühring 1904, 104, 110; 1882, 175), is simply absurd; the opposite would be about true. In geometry, the focus of the insult and actually Helmholtz' first love (Helmholtz 1891, 7), Helmholtz is eminent to this day. (Kahl 1967, 469, 470; see Koenigsberger 1896, 7–10) And in philosophy, granted, Helmholtz was a positivist (Kahl 1967, 469–471), but so was Dühring (Albrecht 1927, 34), if of a different brand. And if Helmholtz is accused of being an intellectual lightweight and a babbler, if we compare the entries for Dühring and Helmholtz in the standard *Encyclopedia of Philosophy*, we find that Dühring has slightly over three, Helmholtz slightly over four columns. (Zweig 1967 and Kahn 1967)

To address the general charge, in 1877, Dühring's attacks on the University in Germany and especially Berlin likewise bordered on the ludicrous, for example his later statement that professors like Virchow, DuBois-Reymond, Mommsen, and Helmholtz were scholarly zeros. (1885, 81) And if we look at today's German publication record of the people involved (in Germany, books rather than articles matter, although this is also changing), the result looks like this:³⁸

	books	reprints	letters	about
Dühring	-	5	-	4
Engels	74	2	19	50
Helmholtz	2	5	3	13
Mayer	1	2	1	1
Tobler	3	1	1	1
Wagner	1	2	1	2
Zeller	1	4 (9 vols)	1	1000

³⁸ This table is based on the *Verzeichnis lieferbarer Bücher* ("index of suppliable books", VLB), the main German online index for book-shops listing all books currently available for purchase in Germany, which includes some books in English (<http://www.buchhandel.de.> as of September 1997, when the first version of this essay was presented in Maastricht). The respective persons were looked up and then checked against mistakes, double-entries, etc. The first category refers to new editions authored, the second to reprints, the third to letters, diaries, etc., and the fourth to books about the men in question. All include books referenced to them but also dealing with other people. Three of the four hits for books about Dühring are editions of *Anti-Dühring*; one of the two books about Wagner (see Drechsler 1997 in the bibliography) was by mistake of the press not yet listed in the VLB. Not included is the reprint of *Aktenstücke* 1877, which appeared after the search date and which was prompted by the 1997 Maastricht conference on Dühring to begin with. It could additionally be listed under the "about" category for all of the above-mentioned men except Engels.

This shows that Dühring's senior colleagues were no fakes. Indeed, this Faculty encompassed some of the great minds of its time and of Western scholarship, whose work, even in areas that do change significantly, has stood the test of time very well. Even Albrecht admits that Dühring's attacks against the colleagues around 1870 were not without guilt. (1927, 15)

But about the University as such, many of his charges, in spite of being "sour grapes", had a kernel of truth in them. (16–17) Dühring was right, certainly, that scholarly merits are not the only, and generally perhaps not the main, cause for promotion or for receiving a professorship – soft knowledge is often more important than hard knowledge. Even Helmholtz, who originally was an outsider, had occasionally commented on the cliquishness of the professoriate. (See Ostwald 1919, 280) But here, too, it is the form that matters. Even if we say that Dühring's descriptions contained elements of truth, they formed, as Albecht says, the "grandest generalizations and completely limitless attacks". (18; see Cobet 1973, 15) They were doubtless phrased in such a way as to insult, and so they did. To call a senior colleague a "vaguely a bit philosopherizing physiological physics-professor" (*Aktenstücke* 1877, 12 n. 3) is today, as it was then, a plain insult.

IV The Legality

1. Accordance with the Law

Was Falk's 1877 decision legal? Let us repeat the facts. § 52 of the University Statutes states explicitly that the Faculty may issue a Privatdozent with a warning or a reprimand in the case of slighter offenses, and in case of repeated or graver ones, to apply for remotion at the Ministry. In 1874, Dühring commits what in 1875 is judged to be a grave offense by Faculty and Ministry a judgment that is not inappropriate if one looks at the 1874 article -, but because of his opponent's behavior, and in spite of the Faculty's application, Dühring only receives a grave reprimand through the Dean. This reprimand, as the Minister's letter to the Dean, contains the explicit warning that in case of repetition, he will be remoted without fail. It is even specified that Dühring must concentrate on scholarship and teaching and not malign either his colleagues or his University in the future. Dühring signs. Two years later, Dühring publishes two books in which four segments are to be found which, in the opinion of the Faculty, and quite objectively as well, constitute such a repetition, as they exactly address the two areas that were forbidden to Dühring. The passages cited really do say what the Faculty and Ministry claim they say. They are personal invectives against senior members of his own faculty (never mind the possible partial truth value of one of them), and the University is maligned. Thus, as even Albrecht concedes, this is a "repetition case". (1927, 17-18) Dühring is asked to defend himself, but in his defense he only emphasizes his claims. (Cf. Mogge 1977, 33) Thus, the Faculty again applies for his remotion, based on both the

gravity and the repetition of the offenses. This time the Minister agrees and issues it. Dühring is remoted in full accordance with the existing law.

2. Chicanery

The only reason why even this might not have been legal could be if it were a case of chicanery (the question of adequacy, which would immediately present itself at this point today, is dealt with below in the section on legitimacy). This basic legal principle states, in the words of § 226 BGB (the German Civil Code introduced in 1900), that "It is not permitted to exercise a right if it can only have the purpose to harm someone else." But § 226 BGB is hardly ever applied in German courts because of the "only": one has to prove that only the harm is the purpose of the action in question and nothing else, because otherwise any exercise of one's right would be illegal if one were not entirely disinterested. (See von Feldmann in *Münchener Kommentar* 1993 § 226 Rdnr. 1; W. Hefermehl in Erman 1993, § 226 Rdnr. 1 and esp. 5; Damm in Luchterhand Alternativkommentar 1987, § 226 Rdnr. 1)

This is also true of the general principle. We do not know what the genuine motives of the Faculty were. (Cf. Mogge 1977, 33) Dühring himself later said that "scholars' envy first of all is the true cause for my removal." (1882, 199; similarly Lessing 1922, 21) He claimed that this envy arose partially because his classes were much fuller than those of the others. (Dühring 1904, 109; cf. Döll 1893, 3–8; but see Wagner to his brother, 29 January 1875, in Wagner 1978, 131) But as a cause for remotion, this is hardly credible, especially as teaching success was not very important for one's status at the University of Berlin.³⁹ Dühring later constructed a 'Jewish-social democrat-professorial plot' that was at the base of his remotion (1904, 116–119; 1882, 170, 358–360), but we need not even consider this.

One certainly gets the impression that Dühring's offenses were not the cause but just the opportunity to dismiss him. (See Albrecht 1927, 18) It must have been a daily horror to have him around, and the Faculty members might have easily gone a long way to get rid of him. However, the cited insults were so grave and personal as to indubitably form an immediate reason for the remotion. (See Mogge 1977, 33) That these were seriously offensive, and that Dühring seemed prepared to go on with them, becomes obvious in the files, and § 52 allows the remotion of exactly such people. It would be incorrect, thus, to speak of chicanery here.

In sum, Eugen Dühring's remotion must be pronounced legal.

³⁹ Helmholtz himself, although brilliant in public speeches and addresses, was a bad university lecturer as far as dramatics were concerned – probably much worse than Dühring –, and did not enjoy teaching. In the end, he moved the emphasis of his activities to a newly-founded research institute. (Gerlach 1969, 499; Hörz 1994, 87, 97–98; Ostwald 1919, 291–292 – Ostwald had taken classes from Helmholtz – Dühring 1904, 115, 109; 1882, 154; but also Boring 1957, 301)

V The Legitimacy

If we look at the legitimacy, however, the criteria shift. Then, the question is whether the Berlin professors and the Ministry should, by their own standards of academic freedom which they realized as necessary for a well-functioning university, and which they impressively demonstrated in the later but comparable Leo Arons case,⁴⁰ have tolerated Dühring's accusations – in the sense that he might have been penalized in other ways than dismissing him and taking his most important academic credentials, and to some extent his livelihood, away.

The 'standards of the community', if by the latter we mean the Berlin, Prussian, or German public opinion interested in these matters at that time, clearly point that way. On the one hand, there does not appear to be one publication of that time in which Dühring's diatribes against his colleagues and the University was not seen as far out of line. On the other hand, there is no doubt about the general outrage against his remotion either, even among his enemies such as Engels. (Engels 1885 in 1948, 7: "shameful injustice"; see also Döll 1893, 7–8) Even Marxist-Leninist orthodoxy endorsed the initiative against the remotion, if not its pairing with effusive praise for Dühring ("Vorbemerkung" 1948, xix; Adamiak 1974, 108; Dühring, of course, saw this as a 'Jewish conspiracy'; 1904, 118–119; 1882, 188–193). This was also the later view; the Dühring case was often seen as a defeat for the University as it should be. (Albrecht 1927, 23) As Ostwald said in 1919, it "indubitably stands in contradiction to the freedom of science claimed for the universities." (84)

One could also easily argue that Dühring, when talking about any recent developments in science and scholarship, had to talk about his colleagues, because his Faculty was so eminent that some of its members would be involved by default. This was a particular problem because Dühring's books were comprehensive surveys of large areas of learning, rather than specialized studies in which one could have avoided one's colleagues' topics more easily.

It is no less true for being a cliché that the University lives through tolerance, i.e. the toleration, rather than endorsement, of a view that stands in contrast to

⁴⁰ In 1899, the Jewish Social Democrat Leo Arons, *Privatdozent* of Physics at Berlin and within the same Faculty as Dühring, was remoted. However, the one and only reason given for his remotion was his politics. (Arons 1900, 7) This was by direct Imperial command (see the Kaiser's cable of 8 October 1897, in Mattenklott 1984, 154–155); yet the Faculty stood up for its member, and so did the Ministry. It took a special law, passed in 1898, to dismiss him, the so-called Lex Arons. Incidentally, this law was – as it violated the principle of *nulla poena sine lege* – generally felt to be illegitimate, but it did clear the disciplinary legal situation of the *Privatdozenten*. (See Busch 1959, 114–115) Even then, the Faculty court found Arons, who always admitted to being a Social Democrat, not guilty. (Arons 1900, 13–18) That commission included several people already involved in the Dühring case, such as Wagner and Tobler. (13–14) The Ministry of State Affairs as appeals level overturned this judgment, arguing that the presence or absence of agitation was not the point. Rather, being a Social Democrat, even though the party was legal, was enough to disgualify for teaching at a Prussian university. (36–38)

the one oneself is convinced to be true. Why this is so is a matter of much debate; as Jürgen Backhaus has pointed out, we simply do not know how a university works and produces what it is supposed to produce, whatever that may be, although we know that it (generally) does. (1996, esp. 13) The University (rather than a polytechnic or some such institution), in an almost Platonic way, can only serve the State by staying away from it.

Dühring himself, predictably enough, was a champion of academic freedom only for a select group, arguing just four years after his remotion that Jews should principally not be allowed to teach at German universities. (1881a, 140– 142; see also Jochmann 1985, 113) But these were his standards, and while this statement should quickly obliterate all personal sympathy one might still feel for him in the remotion case, they do not directly change the criteria for whether the latter was legitimate or not. For these, it is important to ask what was the view of academic freedom of the senior members of the Faculty.

In October 1877, after Dühring's remotion, Helmholtz was elected Rector of the University, probably also as an endorsement of his colleagues after what – in his perspective – he had been through. (Helmholtz 1877b, 193; Koenigsberger 1903, 237) He gave his inaugural address "On the Academic Freedom of the German Universities." (1877b) In it, he claimed that right then, at German universities the most extremist scientific views could be taught. However,

just like on the stage of European parliaments, suspicions about motives and disparagement of personal characteristics of one's opponent – both means which obviously have nothing to do with the decision about scientific claims – remain forbidden; just like instigation to the exercise of illegal acts. But there is no obstacle for discussion of any scholarly question in a scholarly way. (201)

If Helmholtz, by saying this, implied that Dühring had gone beyond the scientific discourse (Ostwald 1919, 292–293), then in a very moderate way, but the point is: did Dühring indeed go beyond this? I would say it is clear that he did; he could have phrased his points differently, and with no less effect. Objectively, more respect and common courtesy towards one's senior colleagues on Dühring's part would have hardly qualified as a form of undue servility.

And yet, if we put the definition of legitimacy higher still, we can say that in this case it hinges on a related question: not only whether Dühring overstepped the necessary borders of good conduct within his community to such an extent that the community's well-being really was *endangered*, but also whether the Faculty's and Ministry's action was an *appropriate*, i.e. *adequate*, response.

As regards the well-functioning of the university, regarding the plagiarism charge, Dühring makes his strongest point when he says that discussions about priority are a legitimate part of the scientific discourse (indeed, inter-subjective verification is the basis of any form of science), and that it does not bear interference by the "teaching police." (1882, 175–176) As the discussion above has tried to show, Dühring's charge was perhaps unfounded, but it was and is one that can be argued.

As regards the question of appropriateness, a blind man is deprived of his livelihood, and in a way that would not make it easy to find similar employment elsewhere. It is true that Dühring later claimed that he subsequently received calls to minor universities (also part of the 'plot', he thought; 1882, 187; 201–202), and that, as August Bebel wrote in his memoirs, his conflict with State and University, and especially the remotion, "only increased his reputation in the eyes of his followers." (Quoted in "Vorbemerkung" 1948, v) Dühring's audience very soon diminished, mainly due to his increasing oddity. However, as will be recalled, this very increase can perhaps at least in part be attributed to the remotion to begin with.

If one looks at it this way, the action of the Faculty remains understandable, but its legitimacy becomes doubtful. The professors probably did not have to foresee the outcome, but if Dühring's fate indeed was the consequence of the remotion, then we have almost arrived at pronouncing the latter as both unnecessary and inappropriate. Could the lectures and writings of a *Privatdozent* like Dühring really have harmed these masters of the mind? Theodor Lessing, himself for 14 years *Privatdozent* and then just *Extraordinarius*, states that University and Ministry were at fault in not providing adequate support for, but rather alienating, someone who in the end was "the strongest independent thinker of the current epoch." (1922, 41–43, 46)

However, concerning appropriateness, the Faculty would have had little alternative recourse. In the 1870s, there were hardly any criminal laws governing these matters, because in the social sphere to which the professoriate belonged, they were at least theoretically not dealt with in the courts, but rather in the course of a duel. (See Frevert 1991, *passim*) This, of course, was not only genuinely superannuated, in spite of the above-mentioned almost-duel Adolph Wagner fought (or better, did not fight), but it was of course impossible to challenge a blind man. Dühring did not receive any salary, as he lived from lecture-fees and royalties, so neither could he be controlled via money matters or funding cuts. His position permitted him to teach whatever he wanted, so to limit his lectures to specific areas was also not an option.

Concerning the danger Dühring posed to the Faculty, it is very difficult to argue that a community at a given point in time does not have the right to constitute itself according to rules that seem to be necessary in order for the community to survive. To use the Straussian model, a philosopher is necessarily at odds with the community he lives in; yet, he needs this community to survive and to be able to philosophize to begin with. He therefore must, at least outwardly, respect his community's rules and standards. (Cf. Strauss 1973, 1988) That Dühring violated those norms is clear from the reactions by his colleagues. And already his 1874 reply to Wagner, such as the coarse insults directed at the latter's dead father, goes well beyond anything acceptable from an after all junior colleague, then as well as now. The legality question enters into the matter of legitimacy here as well: one cannot avoid the feeling that Dühring "had it coming." His remotion was not an arbitrary decision; it had been specified to Dühring what precisely he should not do any more, but he did it nevertheless.

Finally, there are the questions of whether Dühring's colleagues in the Faculty were by 1875 already able to discern which road he would take, and whether his third period was a logical consequence of his entire life, rather than of the remotion. And thus, in spite especially of Theodor Lessing's understanding account, Dühring's anti-Semitism enters once again.

To see anti-Semitism as an indication of general deficiencies of character and personality is not only the perspective of a later century. (Cf. also Mogge 1977, 15–16) Even around the time of his remotion, Dühring embodied the very peak of German anti-Semitic extremism. (Pulzer 1966, 52) And as Friedrich Nietzsche said in the very year of Dühring's argument against Jews as University teachers,

At the risk of giving the Messrs. anti-Semites a "well-measured" kick, I confess that the art to lie, the "unconscious" stretching out of long, all-too-long fingers, the swallowing of other people's property, appeared to me so far much more pronounced with any anti-Semite than with any Jew. An anti-Semite always steals, always lies – he cannot other... (Quoted in Kaiser 1994, 281)

It might not be unscholarly, therefore, to conclude with the statement that especially in case the Faculty of Philosophy based its actions, not only on being merely annoyed by Dühring's personal invectives, teaching success, and challenges of their work, but mainly on the recognition of a clearly destructive, threatening and downright evil central streak in his work and also his personality, such as was most clearly apparent through his rabid anti-Semitism, *Herrn Eugen Dührings Remotion* was not only legal, but that it was legitimate as well.

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