

**Otto Walkhoff (1860–1934) –
Model scientist and early National
Socialist**

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Introduction: Otto Walkhoff is considered one of the most important dentists of the early 20th century. But while he gained lasting fame as the eponym of scientific developments (“Walkhoff-Paste”, “Walkhoff-Aufreiber”), the knowledge about his personality and the background of his retirement is rather fragmentary. His relationship to National Socialism has received even less attention. The present contribution takes the existing gaps in research as an opportunity for a synoptic analysis of Walkhoff’s life and work.

Material and methods: Archival files, an autobiographical writing by Walkhoff (1934) and the “History of the Walkhoff Family” published in 1939 are the basis of this study. In addition, a comprehensive re-analysis of secondary sources (doctoral theses, specialist essays, eulogies, necrologists) on Walkhoff and his environment was carried out.

Results: Walkhoff was a pioneer in dental radiology and endodontics and the doyen of the dental doctorate. On the other hand, he was in clinches with colleagues and authorities for decades, which ultimately led to his forced early retirement. In political terms, Walkhoff joined the National Socialist German Workers’ Party (NSDAP) at an unusually early stage (1929).

Discussion and conclusion: Walkhoff was exceptionally well recognised in his field, but highly controversial as a personality. He joined the NSDAP at a time when it was neither politically opportune nor career-enhancing. He remained faithful to Nazi ideology until his death, and in 1934 — and thus one year after the change of power — he explicitly positioned himself as a supporter of Hitler. At the same time, he placed himself at a critical distance from two democratic parties, the BVB and SPD, which both were dissolved in 1933.

Keywords: DGZMK; National Socialism; NSDAP; radiology; tooth preservation

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Introduction

Otto Walkhoff is considered one of the most important dentists in the history of the discipline and, moreover, the most influential and prominent German representative in the first third of the 20th century. He not only set important scientific accents — especially in dental radiology and tooth preservation — but was also active in professional

politics as longtime president of the “Deutsche Gesellschaft für Zahn-, Mund- und Kieferheilkunde” (German Society for Dental and Oral Medicine, DGZMK) (1906–1926, cf. Tab. 1): Among other things, he paved the way for the right to confer doctoral degrees in dentistry, which was introduced in 1919. Nevertheless, he was considered uncompromising and unbending, and his activities at the universities of Munich and Würzburg were marked by continuous quarrels with colleagues and authorities.

While Walkhoff’s oeuvre is comparatively well documented, there is only scanty and sometimes contradictory information on his willingness to argue and on the reasons for his dismissal in Würzburg. In addition, Walkhoff’s political views have received little attention: although his curriculum vitae and academic career were the subject of two dissertations (1954 and 1985), his relationship to National Socialism was completely omitted.

The present article takes the gaps in research outlined above as an opportunity for a synoptic analysis of Walkhoff’s life and work. The aim is to highlight his extraordinary achievements in science and professional politics, his multifaceted personality, but also his political stance, and to place them in the contemporary context.

Material and methods

Central parts of the study are based on various primary sources, some of which were evaluated for the first time.

These include archival records (Federal Archives Berlin and Secret State Archives Prussian Cultural Heritage Foundation), an autobiographical account by Otto Walkhoff published in 1934 (kept in the Bavarian State Library in Munich), as well as the “History of the Walkhoff Family” published by Erich Walkhoff in 1939.

The numerous publications by Walkhoff and his cooperation partners were also analysed. In addition, a re-analysis of more than 40 secondary sources (dissertations, professional essays, laudations, obituaries) on Walkhoff and his professional and political environment was carried out.

Results and discussion

Otto Walkhoff — life and career stages

Friedrich Otto Walkhoff was born on April 23, 1860 in Braunschweig (Fig. 1¹)²³⁴⁵⁶⁷⁸⁹¹⁰. He was the son of the civil auditor Friedrich Julius Walkhoff (1813–1884) and his wife Christiane Bruer (1825–1862). Otto had an older brother — Friedrich Wilhelm Walkhoff (1848–1899), who later became a physician and “Sanitatsrat” (medical councilor) in Dresden — and an older sister named Mathilde (1846–1921), who remained unmarried.

Otto Walkhoff attended the elementary school in Braunschweig and (from 1870) the grammar school in Hoxter, which he left in 1877 a year before taking his Abitur. A family friend — the Braunschweig dentist Wilhelm Niemeyer — had advised him to study dentistry. At that time, prospective dentists did not need a school-leaving certificate (Abitur) for this training, as Walkhoff himself pointed out: “As the son of a small civil servant, I had worked my way up from not having a school-leaving certificate in almost 50 years of intensive work in my field to the reputation and position I now occupied in it, quite apart from my academic career from dental practice to personal full professor” — something I am particularly proud of, because only very few others succeeded in doing so (translated by DG)¹¹.

In 1878 Walkhoff began his training as a dentist in the private practice of Carl Sauer (1835–1892) in Berlin. It was Niemeyer who got him the job with Sauer, a renowned

¹ GroR D: Otto Walkhoff — Erkämpfer des Dr. med. dent., Zahnarztl Mitt 2017; 107: 100–102

² Egerer-Rohricht H: Personalbiographien von Professoren und Dozenten der Klinik und Poliklinik für Zahn-, Mund- und Kieferkrankheiten der Universität München im ungefähren Zeitraum von 1870 bis 1967: mit kurzen biographischen Angaben und Übersichten der Publikationen. Diss. med. dent. Erlangen 1971, 42–67

³ GroR D: Die „Deutsche Gesellschaft für Zahn-, Mund- und Kieferheilkunde“ im Spiegel der Geschichte (1859 bis 1999), Quintessenz, Berlin 1999, passim

⁴ GroR D: Otto Walkhoff — Erkämpfer des Dr. med. dent., Zahnarztl Mitt 2017; 107: 100–102

⁵ GroR D: Die Geschichte des Zahnarztberufs in Deutschland, Einflussfaktoren — Begleitumstände — Aktuelle Entwicklungen. Quintessenz, Berlin 2019, passim

⁶ GroR D, Schmidt M, Schwanke E, Zahnärztliche Standesvertreter im „Dritten Reich“ und nach 1945 im Spiegel der Lebenserinnerungen von Hermann Euler (1878–1961) und Carl-Heinz Fischer (1909–1997). In: Krischel M, Schmidt M, GroR D (Hrsg.): Medizinische Fachgesellschaften im Nationalsozialismus. Bestandsaufnahme und Perspektiven. Lit, Berlin, Münster 2016, 129–171

⁷ Hess W: Zum 100. Geburtstag von Otto Walkhoff. Dtsch Zahnarztl Z 1960; 15: 713–715

⁸ Rohrmeier G: Friedrich Otto Walkhoff (1860–1934), Leben u. Werk. Diss. med. dent. Würzburg 1985, passim

⁹ Schubert, W: Friedrich Otto Walkhoffs wissenschaftliche Bedeutung. Diss. med. dent. Köln 1954, passim

¹⁰ Tschernitschek H, Geurtsen W: Zum 80sten Todestag von Otto Walkhoff. Dtsch Zahnarztl Z 2014; 69: 360f.

¹¹ Walkhoff O: Meine Amtsentsetzung durch die Führer der Bayerischen Volkspartei, Kurt Müller, Berlin 1934, 7f.

prosthodontist¹². At the same time, Walkhoff attended occasional lectures at the Berlin Charite. During this time, while still a student, he also founded “the first association of students of dentistry at the University of Berlin”¹³.

At the beginning of 1881 he passed the dental examination, obtained his licence to practise dentistry and soon became an assistant in the practice of dentist D. Koser in Berlin. In October 1881 he then entered military service as a one-year volunteer, which he completed in September 1882. From October 1882 he again worked in Sauer’s practice. At the same time he was an assistant in the technical department (1882/83) and the restorative department of the Dental Institute of the University of Berlin (1883–1885). Walkhoff remained with Sauer until 1885 — and thus just until the year in which Sauer was elected president of the Central Association of German Dentists (CVDZ, today: DGZMK). But the year 1885 was also significant for Sauer and Walkhoff in another respect: On September 18, 1885, Walkhoff married Gertrud Sauer — the daughter of his mentor — and thus became Sauer’s son-in-law and at the same time the brother-in-law of Franz Sauer, who had also chosen the dental profession. In the same year, Walkhoff took over Wilhelm Niemeyer’s practice, which he ran until 1900. Walkhoff was thus already excellently networked in terms of professional politics at a young age: In addition to his father-in-law Sauer, Niemeyer (as a temporary CVDZ vice president) was also an outstanding representative of the dental profession.

In May 1897, Walkhoff received his doctorate (Dr. phil.) — parallel to his practice — at the University of Erlangen with the thesis “Contributions to the finer structure of the enamel and to the development of the dentine” (the doctorate “Dr. med. dent.” was only introduced later). At the beginning of 1900 he was able to habilitate in dentistry in Erlangen. He was then appointed as a private lecturer and — still in February 1900 — as “II. teacher” at the Dental Institute of the University of Munich, which was then headed by Professor Jakob Bertin (1855–1934). In June 1901 he was promoted to “I. teacher” and in December 1901 to titular professor. This was followed in 1903 by a nontenured associate professorship (as a reaction of the Munich University to a call to Berlin, which Walkhoff rejected) and in 1907 by a tenured associate professorship and the appointment as Royal Bavarian Court Councillor (in response to another call to Leipzig, which he also declined).

At the end of 1921, Walkhoff received a call from Wurzburg, where they were looking for a successor to the unexpectedly deceased director of the institute, Andreas Michel (1861–1921). In April 1922 — at the age of 62 — Walkhoff actually took up the post as personal full professor and director of the Wurzburg Dental Institute. His (premature) retirement came in 1927.

He subsequently moved into his wife’s parental home in Berlin-Lichterfelde. Here he continued his scientific studies until shortly before his death.

¹² GroR D: Otto Walkhoff — Erampfer des Dr. med. dent., *Zahnarztl Mitt* 2017; 107: 100–102

¹³ Romer O: Friedrich Otto Walkhoff. Ein Lebensbild. In: *Deutsche Zahnheilkunde. Forschung und Praxis. Ein Band zu Ehren von O. Walkhoff*. Thieme, Leipzig 1920, 9–19

Walkhoff died on June 8, 1934 in Berlin-Lichterfelde at his parents-in-law's house as a result of a cerebral stroke followed by heart failure "after a prolonged agonising suffering"¹⁴. He was buried at the Parkfriedhof (Park Cemetery) Lichterfelde (gravesite FiW-40,¹⁵).

Walkhoff as a scientist, professional politician and colleague

Walkhoff's professional importance can already be guessed from his numerous calls: Before he accepted the call from Munich (1900), he had already turned down offers of lectureships in Freiburg (1896), Marburg (1897) and Breslau (1900) — later, as already mentioned, he also rejected calls from Berlin (1903) and Leipzig (1906)¹⁶.

Even before his move to the University of Munich, Walkhoff had made his first professional pioneering achievements: In January 1896, he introduced X-rays to dentistry in his practice in Braunschweig. Shortly after the discovery of X-rays by Wilhelm Conrad Röntgen (1845–1923) in November 1895, he had made the first dental X-rays in Braunschweig together with his friend, the chemist Friedrich Giesel (1852–1927), which still required an exposure time of 25 minutes. As early as April 1896, he presented improved results at a dentists' conference. In the years that followed, he "made all the radiographs for the doctors and dentists in his own X-ray laboratory"¹⁷. In addition, Walkhoff soon tested the use of radium, discovered by Marie and Pierre Curie in 1898, in (dental) medicine, initially undertaking selfexperiments to investigate the (side) effects of radium. For example, he fixed a radium preparation provided by Giesel to his arm, causing skin inflammations. In 1900, he published a paper on "Invisible Photographic Rays". There he outlined similarities between the effects of X-rays and the radiation emanating from radium and assumed that both forms of radiation had tissue-altering effects¹⁸. Walkhoff also observed in experiments that mice suffering from cancer died significantly later when exposed to radium radiation, thus contributing to the development of radium therapy in tumour treatment. In 1928, he then looked back on the "first application of X-rays and radium in dentistry" and summarised his findings¹⁹.

In addition, Walkhoff made a significant contribution to root canal treatment: In 1928, he introduced the "iodoform paste" ("Walkhoff paste") to dentistry, which was

¹⁴ Hess W: Professor Dr. med. Otto Walkhoff gestorben. Schweiz Mschr Zahnheilk 1934; 44: 572–579

¹⁵ GroR D: „Walkhoff, Otto“, In: Neue Deutsche Biographie. Vol. 27. Vockerodt — Wettiner, Berlin 2020, 328f.

¹⁶ Rohrmeier G: Friedrich Otto Walkhoff (1860–1934), Leben u. Werk. Diss. med. dent. Würzburg 1985, passim

¹⁷ Hess W: Professor Dr. med. Otto Walkhoff gestorben. Schweiz Mschr Zahnheilk 1934; 44: 572–579

¹⁸ Walkhoff O: Unsichtbare, photographisch wirksame Strahlen, Photograph Rdsch 1900; 14: 189–191

¹⁹ Walkhoff O: Die erste Anwendung der Röntgenstrahlen und des Radiums in der Zahnheilkunde, Corresp. bl Zahnärzte 1928;52: 307–310

mixed with chlorophenol-camphor-menthol and is still partly used today²⁰. Due to its absorbability, it also seemed “particularly suitable for milk teeth”²¹. Moreover, he gave his name to the “Walkhoffsche Kortikalschicht” (Walkhoff cortical layer)²² and the “Walkhoff-Auftreiber” (Walkhoff tappers). The latter were “angular, elastic steel needles of various strengths for preparing narrow root canals” (“Reibahlen”, comparable with modern reamers), which he had introduced into dentistry²³. Further research concerned cariology and the effect of vitamins on tooth development and maintenance. Walkhoff also positioned himself resolutely “against the then rampant surgical radical therapy of dental focal infection”²⁴. Moreover,

Walkhoff was “interested in the history of medicine and stomatology” and, among other things, wrote an appeal at the beginning of 1902 to contribute objects of dental historical interest for an exhibition of the CVDZ²⁶.

Walkhoff has published around 160 publications, including a doubledigit number of monographs. In addition to his histological thesis²⁷ and the above-mentioned writings on radiology, his two atlases on the histo(patho)logy of human teeth^{28,29} attracted special attention. They have often been described as groundbreaking^{30,31}. The same applies to his “Lehrbuch der konservierenden Zahnheilkunde” (Textbook of Dental Conservation, 1921)³² — it was published from 1931 under the title “Walkhoff’s Lehrbuch der konservierenden Zahnheilkunde” with the involvement of Walter Hess and reached six editions by 1960 — as well as to his works on dentin sensitivity³³ and

²⁰ GroR D: Die Geschichte des Zahnarztberufs in Deutschland, Einflussfaktoren — Begleitumstände — Aktuelle Entwicklungen. Quintessenz, Berlin 2019, passim

²¹ Hoffmann-Axthelm W: Lexikon der Zahnmedizin. 3rd edition. Quintessenz, Berlin 1983, 68, 535, 660

²² Fischer I: Biographisches Lexikon der hervorragenden Ärzte der letzten fünfzig Jahre. Herausgegeben und bearbeitet von Isidor Fischer. Vol. 2. Urban & Schwarzenberg, München 1933, 1636f.

²³ Hoffmann-Axthelm W: Lexikon der Zahnmedizin. 3rd edition. Quintessenz, Berlin 1983, 68, 535, 660

²⁴ Hess W: Zum 100. Geburtstag von Otto Walkhoff. Schweiz Mschr Zahnheilk 1960; 70: 276–278

²⁶ Burkhardt I: Geisler M: Stomatologiehistorische Institutionen (Institute, zentrale Sammlungen, Museen) in Deutschland vom frühen 20. Jahrhundert bis zur Zerschlagung des Faschismus, Diss. med. dent. Dresden 1991, 11f., 75f.

²⁷ Walkhoff O: Beiträge zum feineren Bau des Schmelzes und zur Entwicklung des Zahnbeins. Diss. phil. Pries, Leipzig 1897

²⁸ Walkhoff O: Mikrophotographischer Atlas der normalen Histologie menschlicher Zähne. Riesel, Hagen i. W. 1894

²⁹ Walkhoff O: Mikrophotographischer Atlas der pathologischen Histologie menschlicher Zähne. Enke, Stuttgart 1897

³⁰ Greve C: Tabellarische Übersicht über die Geschichte der Zahnheilkunde. Dtsch Zahn-Mund-Kieferheilk 1937; 4: 801–817

³¹ Meyer K: Otto Walkhoff zum 60. Geburtstage. Dt Mschr Zahnheilk 1920; 38: 145–151

³² Walkhoff O: Lehrbuch der konservierenden Zahnheilkunde. Meusser, Berlin 1921

³³ Walkhoff O: Die Überempfindlichkeit des Zahnbeins und ihre Behandlung. 2. Aufl. Berlinische Verlagsanstalt, Berlin 1922



Figure 1 Portrait of Otto Walkhoff²⁵.

endodontics³⁴³⁵. The specialist book series “Deutsche Zahnheilkunde” (German Dentistry), which Walkhoff edited from 1915 onwards, also developed into a great success, and a commemorative publication in Walkhoff’s honour was published in 1920³⁶.

Walkhoff was extremely hardworking and productive throughout his life. Even at the end of his days in Berlin, he remained scientifically active, as evidenced by some 30 late publications. A vivid impression of Walkhoff’s creative power was provided by his student Josef Munch (1894–1977): “And how Walkhoff worked in Wurzburg! He was the first one at the Institute in the morning and the last to leave in the evening, a shining, unprecedented role model for his assistants and coworkers”³⁷.

Table 1 The presidents of the CVDZ (from 1933: DGZMK) who experienced the Third Reich as adults and their party-political orientation

Term of office	Name	NSDAP Membership	Life data
1906–1926	Otto Walkhoff	+	1860–1934
1926–1928	Wilhelm Herrenknecht	+	1865–1941
1928–45, 1949–54	Hermann Euler	+	1878–1961
1954–1957	Hermann Wolf	+	1889–1978
1957–1965	Ewald Harndt	+	1901–1996
1965–1969	Gerhard Steinhart	+	1904–1995
1969–1971	Eugen Fröhlich	+	1910–1971
1972–1977	Rudolf Naujoks	–	1919–2004
1977–1981	Werner Ketterl	+	1925–2010

However, Walkhoff was also considered to be extremely disputatious, unbending and difficult in his personal dealings. Thus, soon after his appointment, there were ongoing disputes at the Munich Institute, which probably also had something to do with the fact that Walkhoff, as an associate professor in Munich, found it difficult to cope with “the subordinate position and dependence on the head of the Institute” — in this very case Jakob Berten (1855–1934)³⁸. Walkhoff got into polemical and very personal disputes with Berten, but also with the second colleague Professor Fritz Meder

³⁴ Walkhoff O: Mein System der medikamentösen Behandlung schwerer Erkrankungen der Zahnpulpa und des Periodentiums. Meusser, Berlin 1928

³⁵ Walkhoff O: Gutachten über die Wirkung des Chlorphenol-Kampfer-Menthols. Berlinische Verlagsanstalt, Berlin 1930

³⁶ Deutsche Zahnheilkunde. Forschung und Praxis. Ein Band zu Ehren von O. Walkhoff. Thieme, Leipzig 1920, passim

³⁷ Munch J: Otto Walkhoff. Ein Lebensbild zu seinem 70. Geburtstag. Zahnärztl Rdsch 1930; 39: 661–664

³⁸ Locher W: 100 Jahre Zahnmedizinische Lehrstühle an der Universität München. Cygnus, München 1998, 16, 42–44, 79–85

(1862–1945) (“a sharp-tongued dispute conducted with biting criticism”:³⁹). Walkhoff accused Meder of “scientific inferiority”, among other things⁴⁰.

Undoubtedly, Walkhoff was more knowledgeable and (as chairman of the CVDZ) also more powerful than Meder, whose publishing activities consisted “mainly in the publication of clinical cases”⁴¹. Nevertheless, Meder was a respected university lecturer; moreover, Berten had his back: both fought Walkhoff together for years. The dispute, which was also carried out in public, could not be contained even by interventions of the university administration.

Finally, in 1922 Walkhoff accepted a call to Wurzburg. But here, too, persistent quarrels arose. On the one hand, they concerned Walkhoff’s actions as president of the CVDZ. Board members gave up their posts in the Central-Verein. The reason for this was Walkhoff’s “autocratic style of leadership”⁴². Hermann Euler described the situation in 1924 as follows^{43,44}: “Schaeffer-Stuckert, Dieck and Cohn had resigned from their board positions, partly in connection with previous differences, so that apart from Kohler and Parreidt the old guard was represented only by Walkhoff [...]. He watched all the more closely over the preservation of the old tradition and proposals that could change something in the internal structure of the Centralverein did not find a sympathetic ear with him.” In 1926, Walkhoff finally reacted to the persistent criticism of his person by resigning from office after 20 years.

At the Wurzburg Institute, too, fierce conflicts began in 1923 at the latest with Gustav Heinrich (1877–1964), the then head of the department of prosthetics and orthodontics: Heinrich had come to the Wurzburg Institute in 1921 at the instigation of Andreas Michel (1861–1921) to complete his habilitation. However, Heinrich and Walkhoff already knew each other from their days together in Munich. Since Walkhoff succeeded Michel as head of the institute, he continued to supervise Heinrich’s habilitation and acted as a reviewer. The habilitation procedure was successfully completed in February 1923, and already at the end of 1923 Heinrich was also promoted to associate professor — albeit against Walkhoff’s will. Shortly afterwards, a plagiarism scandal broke concerning Heinrich’s habilitation thesis. The accusations of deception concerned the animal experiments and methods presented there, as well as the attached visual material. As the responsible peer reviewer, Walkhoff was also involved in the affair: he was accused that the problem would not have arisen if he had “read the ha-

³⁹ Locher W: 100 Jahre Zahnmedizinische Lehrstühle an der Universität München. Cygnus, München 1998, 16, 42–44, 79–85

⁴⁰ Locher W: 100 Jahre Zahnmedizinische Lehrstühle an der Universität München. Cygnus, München 1998, 16, 42–44, 79–85

⁴¹ Locher W: 100 Jahre Zahnmedizinische Lehrstühle an der Universität München. Cygnus, München 1998, 16, 42–44, 79–85

⁴² GroR D, Schafer G: Geschichte der DGZMK 1859–2009. Quintessenz, Berlin 2009, passim

⁴³ Deutsche Zahnheilkunde. Forschung und Praxis. Ein Band zu Ehren von O. Walkhoff. Thieme, Leipzig 1920, passim

⁴⁴ GroR D: Die „Deutsche Gesellschaft für Zahn-, Mund- und Kieferheilkunde“ im Spiegel der Geschichte (1859 bis 1999), Quintessenz, Berlin 1999, passim

bilitation thesis more carefully and checked the results, as would have been his official duty”⁴⁵. Walkhoff then distanced himself from Heinrich, referring to the unfavourable working conditions he had to cope with in Wurzburg and to continuing disputes he had had with Heinrich. In fact, the two had fallen out in 1923 after Heinrich had demanded his own budget and the same rank as Walkhoff. Walkhoff wrote: “H. wanted complete independence for his department at that time, also in the budget, and thus the division of the Institute, whereas earlier the rights of Professor Michel as head of the Institute had been promised to me by the Minister himself!”⁴⁶.

In the end, the faculty found the accusation of plagiarism against Heinrich substantiated and had him dismissed in 1925. But Walkhoff also remained under fire: Heinrich accused him in 1925 (to the faculty) and in 1926 (to the Bavarian parliament) of “serious plagiarism” and also claimed that Walkhoff had “illegally helped his brother-in-law Franz Sauer to his doctorate”: “The thesis was prepared according to Walkhoff’s preparations and dictation”⁴⁷. Walkhoff firmly denied both accusations, and indeed there were no further investigations into the matter. Nevertheless, the ongoing quarrels and mutual, public accusations also led to the end of Walkhoff’s career: the ministry demanded Walkhoff’s early retirement. Walkhoff held the leaders of the “Bavarian People’s Party” (BVB) responsible for his “dismissal from office”. In 1934, he still stated that he had been “removed from my office at the instigation and with the help [of the party]”⁴⁸.

In fact, in 1934, the year of his death, Walkhoff published a 113-page autobiographical essay. There he described — among other aspects of his life and career — his view of his forced dismissal in 1927, raising considerable accusations against the BVB, the Ministry of Culture and Gustav Heinrich, but also against his former Munich colleagues Berten and Meder. The latter had given him the reputation of being a “troublemaker” with the “oddity” that “I could not easily work together with others”⁴⁹. In a family history published in 1939, the genealogist Erich Walkhoff — a distant relative of Walkhoff — followed this account, claiming that the “leaders of the Bavarian People’s Party” had used the Heinrich case to “get rid of the Walkhoff they disliked”, while Heinrich had been treated with leniency⁵⁰. In fact, however, this view falls short, as Rohrmeier rightly pointed out: “In no way could Heinrich have been a favourite of the

⁴⁵ Rohrmeier G: Friedrich Otto Walkhoff (1860–1934), *Leben u. Werk*. Diss. med. dent. Wurzburg 1985, passim

⁴⁶ Walkhoff O: *Meine Amtsentsetzung durch die Fuhrer der Bayerischen Volkspartei*, Kurt Muller, Berlin 1934, 7f.

⁴⁷ Walkhoff O: *Meine Amtsentsetzung durch die Fuhrer der Bayerischen Volkspartei*, Kurt Muller, Berlin 1934, 7f.

⁴⁸ Walkhoff O: *Meine Amtsentsetzung durch die Fuhrer der Bayerischen Volkspartei*, Kurt Muller, Berlin 1934, 7f.

⁴⁹ Walkhoff O: *Meine Amtsentsetzung durch die Fuhrer der Bayerischen Volkspartei*, Kurt Muller, Berlin 1934, 7f.

⁵⁰ Ammann R: *Beitrage zur Geschichte der Familie Walkhoff*. Herausgegeben und mit einem Vorwort versehen von Erich Walkhoff, StaRfurt 1939, passim

Bavarian People's Party, since their representatives in the Landtag unanimously demanded his dismissal. Therefore it is also [...] not correct for Erich and Otto Walkhoff to interpret the ministry's demand for his resignation as a game of intrigue by the Bavarian People's Party"⁵¹.

Among Walkhoff's contemporaries, interestingly enough, his readiness for conflict was a recurring theme: Hermann Euler (1878–1961)⁵²⁵³⁵⁴⁵⁵, a long-time companion of Walkhoff, explicitly praised Walkhoff's professional achievements, but did not fail to mention "that I have often been offended by his [Walkhoff's] oddity"⁵⁶⁵⁷. Oskar Romer (1866–1952) — an avowed friend of Walkhoff — on the other hand at least tried to arouse understanding for Walkhoff's behavior: "It is acutally self-evident that a man who pursues his life's goal with such iron energy as Walkhoff also gets many enemies on his course of life; especially when one considers that Walkhoff does not make concessions easily. Instead, he defends what he has recognised as right with ruthless energy. After all, he has [...] often been called a thick-headed man from Lower Saxony"⁵⁸.

After 1950, however, there was a proliferation of articles in which Walkhoff's disputatiousness and his forced end in Würzburg were glossed over and reinterpreted. Werner Schubert, for example, wrote about Walkhoff in 1954: "In 1927, at the age of 67, he retired from teaching to spend his retirement in Berlin-Lichterfelde, the home of his wife"⁵⁹. Hans-Dietrich Mierau (1930–2019) also provided a shortened version of the circumstances in 2012: "On 30.9.1927 Walkhoff had applied for his retirement. His request was granted in a letter from the State Ministry on October 1, 1927"⁶⁰.

⁵¹ Rohrmeier G: Friedrich Otto Walkhoff (1860–1934), Leben u. Werk. Diss. med. dent. Würzburg 1985, passim

⁵² GroR D: Hermann Euler — der enttarnte DGZMK-Präsident, Zahnarztl Mitt 2018; 108: 92f.

⁵³ GroR D: Hermann Euler (1878–1961) — Ein Nationalsozialist der leisen Tone, Zahnarztl Mitt 2020; 110: 66–68

⁵⁴ GroR D, Schmidt M, Schwanke E, Zahnärztliche Standesvertreter im „Dritten Reich“ und nach 1945 im Spiegel der Lebenserinnerungen von Hermann Euler (1878–1961) und Carl-Heinz Fischer (1909–1997). In: Krischel M, Schmidt M, GroR D (Hrsg.): Medizinische Fachgesellschaften im Nationalsozialismus. Bestandsaufnahme und Perspektiven. Lit, Berlin, Munster 2016, 129–171

⁵⁵ Staehle HJ, Eckart WU: Hermann Euler als Repräsentant der zahnärztlichen Wissenschaft während der NS-Zeit, Dtsch Zahnarztl Z 2005; 60: 677–694

⁵⁶ Euler, H: Lebenserinnerungen eines Lehrers der Zahnheilkunde. Hanser, München 1949, 149

⁵⁷ Scholermann A: Hermann Euler und Hans-Hermann Rebel. Eine Abhandlung über ihre wissenschaftliche Tätigkeit als Leiter des zahnärztlichen Instituts der Universität Göttingen (1921–1947). Diss. med. dent. Göttingen 2003, 10

⁵⁸ Romer O: Friedrich Otto Walkhoff. Ein Lebensbild. In: Deutsche Zahnheilkunde. Forschung und Praxis. Ein Band zu Ehren von O. Walkhoff. Thieme, Leipzig 1920, 9–19

⁵⁹ Schubert, W: Friedrich Otto Walkhoffs wissenschaftliche Bedeutung. Diss. med. dent. Köln 1954, passim

⁶⁰ Mierau HD: Zahnheilkunde in Würzburg vor Professor Michel und unsere „Altmeister“ von 1912–1962, In: Klaiber B (Hrsg.): 100 Jahre Zahnklinik Würzburg 1912–2012. Festschrift zur 100-Jahr-Feier. Roll, Dettelbach a. M. 2012, 55–88

However, it should also be noted that the relentlessness and unbendingness of the CVDZ chairman in dental professional politics sometimes brought advantages: Thus Walkhoff was able “in 1925 to push through the beginnings of the great reorganisation” by initiating the merger of the CVZD with the “Vereinsbund Deutscher Zahnärzte”: “In this way he laid the foundation for a powerful edifice which the Central Association represents today, together with its sub-associations”⁶¹. Besides, Walkhoff was also the strongest and most enduring voice in the demand for a right to doctorate in dentistry⁶². On the way to this goal, he also had fierce disputes with those colleagues who advocated full medical studies for future dentists and thus a “full doctorate” (Dr. med.). These included Professors Paul Adloff (1870–1944), Matthaus Reinmoller (1886–1977) and especially Johannes Reinmoller (1877–1955)⁶³⁶⁴⁶⁵. Walkhoff, on the other hand, categorically rejected a 10-semester full course of study in medicine instead of the 7-semester “special course of study” in dentistry. According to him, such a long medical course of training held the danger that “with this scope of study, the student would not sufficiently absorb the teaching needs of his profession”⁶⁶ and that, in comparison with the competing dentists, he would “lose some years of professional experience”⁶⁷. Walkhoff ultimately prevailed with his demand for a separate doctorate for dentists in the form of the Dr. med. dent. — not only among his colleagues, but subsequently also among the German medical faculties: In 1919, these faculties opened the way for the “Dr. med. dent.”, thus suddenly making dentistry more attractive and causing an influx of students. The introduction of the Abitur in 1909 as a prerequisite for studying dentistry was also a success of the “Walkhoff era”.

Walkhoff not only relentlessly advocated the Dr. med. dent., but was similarly resolute in his opposition to the competing “Dentisten” (non-academic dentists) and to the “unification of the two professions” that some colleagues were calling for⁶⁸⁶⁹. In doing so, he did not spare with horror scenarios: according to Walkhoff, any dentist who supported such an approach would “commit suicide”. An integration of dentists into

⁶¹ Hesse R: Otto Walkhoff zu seinem 70. Geburtstage. Dt Zahnärztl Wschr 1930; 33: 483–485

⁶² GroR D: Die schwierige Professionalisierung der deutschen Zahnärzteschaft (1867–1919). Lang, Frankfurt a.M. 1994, 241–248

⁶³ Müller HJ: Biographie und Bibliographie von Johannes Reinmoller (1877/1995). Diss. med. dent. Würzburg 1994, 53, 146, 221, 261, 263f., 274, 276

⁶⁴ Reinmoller J: Erklärung auf eine Schrift Professor Walkhoffs. Dt Zahnärztl Wschr 1918; 21: 5f.

⁶⁵ Reinmoller J: Antwort. Von Professor Reinmoller (Rostock). Dt Zahnärztl Wschr 1918; 21: 27–29

⁶⁶ Leutke G: Geschichtlicher Überblick der Entwicklung und der Reformvorschläge des Studiums der Zahnheilkunde. Diss. med. dent. Greifswald 1937, 23–25, 28, 40

⁶⁷ GroR D: Die Geschichte des Zahnarztberufs in Deutschland, Einflussfaktoren — Begleitumstände — Aktuelle Entwicklungen. Quintessenz, Berlin 2019, passim

⁶⁸ Marezky K, Venter R: Geschichte des deutschen Zahnärzte-Standes. Bundesverband der Deutschen Zahnärzte, Köln 1974, passim

⁶⁹ Müller M: Die Entwicklung des Einheitsstandes für Zahnärzte und Dentisten. Diss. med. dent. Leipzig 1968, 19f.

the dental profession would basically “mean a setback of at least 50 years”⁷⁰. Ultimately, both professions were to remain until the middle of the century. Only then was the profession of “Dentisten” abolished and a “unified profession” of dentists established.

In his private life, Walkhoff enjoyed gymnastics and bowling⁷¹. He also loved nature and art. During his time in Munich, he acquired a “country estate in Leoni on Lake Starnberg”, where he led an upper middle-class life, as Oskar Romer mentioned: “The beautiful villa in the lake with its bathing house, its vegetable gardens, parks, its poultry and rabbit breeding and the whole equipment in the rooms with the antique furniture and art objects, has something [...] uniquely homely [...]”⁷².

In 1934, the year of his death, Walkhoff could look back on a highly successful professional life despite all the quarrels. By the time he was 60, he had advanced to the position of court dentist (1898), winner of the Golden Medal of the CVDZ (1901), Hofrat (court councilor) (1907), winner of the “Herbst Award” (1902), honorary doctor of the universities of Munich (1903) and Marburg (1920) and CVDZ president (1906–1926). Later, he was admitted to the National Academy Leopoldina (1927) and became honorary president of the DGZMK (1930). In addition, he held a double-digit number of honorary memberships in national and international dental associations. Walkhoff’s career highlights included his appointment as “Chairman and Senator of the Odontology Section” of the Leopoldina in 1933⁷³.

To this day, Otto Walkhoff is one of the few representatives of the discipline of dentistry who found inclusion in the “Neue Deutsche Biographie” (New German Biography)⁷⁴. In fact, he developed a considerable posthumous fame that continues to this day — not least due to the fact that the DGZ established the “Otto Walkhoff Award” in 2000. However, the prize became the subject of a debate in 2020. The background to this discourse is the focus of the following concluding analysis.

⁷⁰ Walkhoff O: Zur „Verständigungsfrage“ mit den Zahnkünstlern, Beibl Dt Mschr Zahnheilk 1889;7: 100–104

⁷¹ Friederich W: Die deutschen zahnärztlichen Hochschulgelehrten der Geburtsjahrgänge 1840–1909. Untersuchungen über beruflichen Werdegang, Lebenserwartung und private Neigungen in den verschiedenen Altersgruppen. Diss. med. dent. Berlin 1968, 39, 117f.

⁷² Romer O: Friedrich Otto Walkhoff. Ein Lebensbild. In: Deutsche Zahnheilkunde. Forschung und Praxis. Ein Band zu Ehren von O. Walkhoff. Thieme, Leipzig 1920, 9–19

⁷³ Rebel HH: Prof. Dr. Walkhoff — Obmann und Senator der Kaiserlich-Leopoldinischen Akademie der Naturforscher zu Halle. Dt Zahnärztl Wschr 1933; 36: 457

⁷⁴ GroR D: „Walkhoff, Otto“, In: Neue Deutsche Biographie. Vol. 27. Vockerodt — Wettiner, Berlin 2020, 328f.

Walkhoff's political stance and his relationship to National Socialism

Although Walkhoff's life and work have been the subject of two extensive dissertations⁷⁵⁷⁶, his relationship to National Socialism has been completely omitted. Yet Walkhoff himself provided written statements on his political stance. In addition, archival sources can be found that support and complete Walkhoff's self-image. Walkhoff described himself as "national to the bone"⁷⁷. Against this background, it is not surprising that he belonged to the circle of academics who signed the "Erklärung der Hochschullehrer des Deutschen Reiches" (Declaration of the University Teachers of the German Reich) on October 16, 1914. This was a declaration that interpreted and justified the starting of the First World War as a defensive struggle of German culture⁷⁸.

During the Weimar Republic — at the end of 1929 — he joined the NSDAP (admission 01.12.1929; party no. 172,024)⁸⁰⁸¹⁸². Walkhoff thus belongs to the group of "Alte Kämpfer" (old fighters): This was a designation introduced in October 1933 for early members of the NSDAP from the period before the so-called "seizure of power" in January 1933. The designation applied to those who carried a membership number below 300,000. The "Alte Kämpfer" saw themselves as an (elite) National Socialist core group who had joined the movement out of ideological conviction. Only a few dental university teachers became party members before Hitler came to power; the majority joined the NSDAP in spring 1933⁸³⁸⁴.

Walkhoff died in mid-1934, just over a year after Hitler came to power. However, in the last months of his life he still publicly declared his support for National Socialism. He also described himself as a convinced opponent of the (democratic, Catholic and federalist) BVB and also distanced himself from the "Sozialdemokratische Partei Deutschlands" (Social Democratic Party of Germany, SPD). At the same time, he emphasised in his last writing that in 1900 and 1922, despite political unpopularity, he

⁷⁵ Rohrmeier G: Friedrich Otto Walkhoff (1860–1934), Leben u. Werk. Diss. med. dent. Würzburg 1985, passim

⁷⁶ Schubert, W: Friedrich Otto Walkhoffs wissenschaftliche Bedeutung. Diss. med. dent. Köln 1954, passim

⁷⁷ Walkhoff O: Meine Amtsentsetzung durch die Führer der Bayerischen Volkspartei, Kurt Müller, Berlin 1934, 7f.

⁷⁸ Erklärung der Hochschullehrer des Deutschen Reiches, Berlin, den 23. Oktober 1914, <http://publikationen.ub.unifrankfurt.de/volltexte/2006/3235/> [last accessed: 23.11.2020]

⁸⁰ Federal Archives Berlin R 9361-VIII/24870331

⁸¹ Federal Archives Berlin R 9361-IX/46721113

⁸² Secret State Archives Prussian Cultural Heritage Foundation, I. HA Rep. 76 Va Sekt. 3 Tit. IV Nr. 39, Bd. 16

⁸³ GroR D: Zahnärzte als Täter. Zwischenergebnisse zur Rolle der Zahnärzte im „Dritten Reich“, Dtsch Zahnärztl Z 2018; 73: 164–178

⁸⁴ GroR D, Krischel M: Zahnärzte als Täter und Verfolgte im „Dritten Reich“. Zahnärztl Mitt 2020;110, 24–27

Richtung „hätte sagen lassen müssen“. — Denn ich gehörte weder der Bayerischen Volkspartei, noch der Sozialdemokratie an, war weder partikularistisch, noch international, sondern zwar sehr gut bayerisch, aber anderseits „national bis auf die Knochen gesinnt“! — Das hatte ich nicht nur schon früher jenem zahnärztlichen Kritiker, sondern auch sonst häufig genug in Ansprachen etc. in und außerhalb Bayerns erklärt! Vielleicht aber war ich auch dadurch bei manchen maßgebenden Kreisen anderer Parteien „suspekt“ geworden! Im übrigen bin ich infolge meiner früheren allgemein politischen Einstellung teilweise aber auch infolge meiner eigenartigen Behandlung in Bayern schon vor vielen Jahren Mitglied der NSDAP. geworden, weil ich erkannt hatte, daß diese Partei im Gegensatz zu anderen das Prinzip der Arbeit und Leistung und nicht Protektion, Religion, Kriecherei und Liebedienerei an die Spitze stellt! — Nicht alle Menschen urteilen über

Die neue Zeit unter unserem Reichskanzler Adolf Hitler hat gründlichen Wandel geschaffen! Das frühere Staatsministerium, wie der damalige Landtag sind verschwunden und aufgelassen, und die klerikale Parteiwirtschaft hat damit in beiden aufgehört, ebenso der Partikularismus und Nepotismus, drei Faktoren, die viele Jahrzehnte in Bayern eigentlich alles beherrschten, besonders aber im bayerischen Landtag und im Geschäftsbereiche des Kultusministeriums blühten! Intensivste Arbeit und von anderen Personen anerkannte Leistungen für das betreffende Fach oder für die Einrichtungen des Staates waren nebensächlich, ja „ein Dreck“ gegenüber einem klerikalen Parteibuche und der guten Bekanntschaft von klerikalen Ministern oder Abgeordneten, besonders wenn sie Geistliche oder Gymnasialprofessoren waren! — Auf deren Unterstützung habe ich allerdings nie gerechnet, bin auch mit ihrer Hilfe niemals Professor geworden, sondern vielmehr auf ihr Betreiben und mit ihrer Hilfe aus meinem Amte entfernt!

Fig. 1 and 2, Table 1: D. Groft

Figure 2a and b Walkhoff's political confessions⁷⁹

had managed to get appointments at the universities of Munich and Wurzburg (Fig. 2a,⁸⁵): “For I belonged neither to the Bavarian People’s Party nor to Social Democracy, was neither particularistic nor international, but very well Bavarian, but on the other hand ‘nationally minded to the bone’ — I had not only explained this [attitude] to every dental critic in the past, but also often enough in speeches etc. in and outside Bavaria! But perhaps this also made me ‘suspect’ in some authoritative circles of other parties! Incidentally, as a result of my earlier general political attitude, but partly also as a result of my peculiar treatment in Bavaria, I became a member of the NSDAP many years ago, because I had recognised that this party, in contrast to others, puts the principle of work and achievement first and not protection, religion, sycophancy and servility.”

Moreover, in the same writing he praised Hitler’s drive after he came to power (Fig. 2b,⁸⁶): “The new era under our Reich Chancellor Adolf Hitler has brought about thorough change! The former Ministry of State, like the then Landtag, have disappeared and blown up, and the clerical party economy has thus ceased in both, as have particularism and nepotism, three factors which for many decades actually dominated everything in Bavaria, but which flourished especially in the Bavarian Landtag and in the areas of activity of the Ministry of Culture!”

It was not until the end of 2019 that Walkhoff’s early party membership and Nazi confessions became known: The occasion was a press conference in Berlin on the conclusion of the national project on the dental profession under National Socialism and a corresponding entry on Walkhoff in the “Neue Deutsche Biographie” (New German Biography)⁸⁷⁸⁸. The new findings were then the subject of a cover story (“Otto Walkhoff — Luminary and National Socialist”) in the “Zahnärztliche Mitteilungen” (Dental News)⁸⁹⁹⁰. This report in turn triggered a discourse about the Walkhoff Award, which was expressed in various letters to the editor in the “Zahnärztliche Mitteilungen”⁹¹⁹²⁹³⁹⁴. For example, the dentist Raimo Modler stated: “But to fabricate, as in the case of Walkhoff, that he was an ardent National Socialist because of his

⁸⁵ Walkhoff O: *Meine Amtsentsetzung durch die Führer der Bayerischen Volkspartei*, Kurt Muller, Berlin 1934, 7f.

⁸⁶ Walkhoff O: *Meine Amtsentsetzung durch die Führer der Bayerischen Volkspartei*, Kurt Muller, Berlin 1934, 7f.

⁸⁷ Joint press conference of the National Association of Statutory Health Insurance Dentists (KZBV), the German Dental Association (BZAK) and the German Society for Dental and Oral Medicine (DGZMK), 28.11.2019, <https://idw-online.de/de/event65376> [last accessed: 31.12.2019]

⁸⁸ GroR D: „Walkhoff, Otto“, In: *Neue Deutsche Biographie*. Vol. 27. Vockerodt — Wettiner, Berlin 2020, 328f.

⁸⁹ Kluckhuhn C: Otto Walkhoff — Koryphae und Nationalsozialist. *Zahnärztl Mitt* 2020; 110: 30f.

⁹⁰ GroR D: Die Frage ist: Eignet sich der Namensgeber für eine Auszeichnung? *Zahnärztl Mitt* 2020; 110: 32

⁹¹ *Zahnärztl Mitt* 2020; 101: 30–31

⁹² *Zahnärztl Mitt* 2020; 101: 9

⁹³ *Zahnärztl Mitt* 2020; 101: 8

⁹⁴ *Zahnärztl Mitt* 2020; 101: 8f.

early party membership, is really abstruse [...] Since Walkhoff does not seem to have brought any guilt upon himself, renaming the Walkhoff Award is simply silly. This is not coming to terms with history, it is running away from it!”⁹⁵. However, this view did not go unchallenged. Giesbert Schulz-Freywald, former Vice-President of the State Dental Association of Hesse, emphasised: “Walkhoff was a stirrup holder [...] we in the profession must now ask ourselves whether Walkhoff as a person should continue to be honoured by the ward given the current state of knowledge. [...] Is the eponym suitable for an award?”⁹⁶.

The board of the “Deutsche Gesellschaft für Zahnerhaltung” (German Society for Restorative Dentistry, DGZ), chaired by Christian Hannig, had already answered this question at that time — and subsequently published the following press release: “As a dental professional society, the DGZ also represents values such as humanity, respect for human dignity and free democratic values. As dentists and scientists, we not only have a great professional responsibility, but also a responsibility to society as a whole. Consequently, we will rename the Walkhoff Award of the DGZ to the DGZ Publication Award. All previous winners of the Walkhoff Award will receive an amended certificate”⁹⁷.

Conclusions

The findings lead to the conclusion that Walkhoff not only made significant contributions to the professionalisation of the German dentists (such as the right to obtain a doctorate) and to the further development of dentistry (radiology, dental conservation, histology), but also enjoyed a high professional reputation among contemporary colleagues. However, it is equally evident that Walkhoff was highly controversial as a personality and had the reputation of being quite uncomfortable and uncompromising.

Furthermore, the sources prove his early commitment to National Socialism and his classification as an “old fighter”: Walkhoff joined the National Socialist Party during the Weimar Republic — and thus at a time when such a decision was politically not in vogue. On the contrary: the NSDAP was banned for a time in the Weimar Republic, was considered undemocratic at an early stage and was viewed critically by large sections of the intelligentsia and the educated middle classes. Moreover, Hitler’s political goals were well known in 1929 — “Mein Kampf” (My Struggle) was published as early as 1925. Thus the argument of political ignorance or lack of predictability of the NSDAP agenda, which has been widely circulated up to the recent past, falls short as an explanation for party membership.

⁹⁵ Zahnarztl Mitt 2020; 101: 9

⁹⁶ Zahnarztl Mitt 2020; 101: 8f.

⁹⁷ „Walkhoff-Preis“ wird umbenannt in „DGZ-Publikationspreis“, 6. August 2020, <https://www.dgz-online.de/presse-meldungen/walkhoff-preis-der-deutschen-gesellschaft-fuer-zahnerhaltung-wird-umbenannt-dgz> (last accessed: 26.11.2020)

Walkhoff also had no need to join the NSDAP in 1929 for career reasons — this distinguished him from young university lecturers who, after Hitler’s “seizure of power” (1933), became party members in droves to further their own careers or to escape feared personal disadvantages.

Walkhoff remained loyal to Nazi ideology until his death and still positioned himself explicitly as a supporter of Hitler in 1934 — and thus one year after the political change of power. At the same time, he kept a critical distance from the two democratic parties, BVB and SPD, which were dissolved in 1933.

Conflict of interest

The author declares that there is no conflict of interest within the meaning of the guidelines of the International Committee of Medical Journal Editors.

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Dominik Gross
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Otto Walkhoff (1860–1934) – Model scientist and early National Socialist
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Ted in his school paper on Neanderthal Man discussed skull shapes and races a lot,
then referenced a book edited by this early nazi scientist. Ted may have been the
most intuitively anti-racist person in the world, but regardless, it's an interesting
historical connection.

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