

1923 congress of the German pathological society, where several participants (Berblinger, Teutschlaender, Askanazy, Fahr, Kraus, Mathias, Mönckeberg, and Versé) conceded the reality of the increase; see the *Verhandlungen der deutschen pathologischen Gesellschaft* 19 (1923): 190-92. On Leipzig's increase, see Carly Seyfarth, "Lungenkarzinome in Leipzig," *Deutsche medizinische Wochenschrift* 50 (1924): 1497-99; and more generally, Milton B. Rosenblatt, "Lung Cancer in the Nineteenth Century," *Bulletin of the History of Medicine* 38 (1964): 412-13.

30. A good review can be found in Hueper's *Occupational Tumors*, pp. 369-468. On the gas warfare theory, see Fritz Reiche, "Zur Genese der Bronchialkrebsse und ihre Beziehungen zu Kampfgasschädigungen," *Medizinische Welt* 6 (1932): 1013-14; on the street dust and road tar inhalation theory, see P. Hampeln, "Häufigkeit und Ursache des primären Lungenkarzinoms," *Mitteilungen aus den Grenzgebieten der Medizin und Chirurgie* 36 (1923): 145-50. For the racial mixing thesis, see Jens Paulsen's correspondence as cited in Hildebrandt's *Rassenmischung*, p. 102. Walter Kikuth claimed that X-rays might be responsible for the increase; see his "Über Lungencarcinom," pp. 107-28. Schönherr believed that increasing automobile traffic was responsible for the growing lung cancer rates in Chemnitz; see his "Beitrag," p. 450, also pp. 443-44 for his discussion of the malnutrition hypothesis. Walther Berblinger in Jena in 1925 discussed mine gases, chemo-toxic inflammation, and smoking, but decided that irritating influenza germs from the recent pandemic were the most likely cause of the increase; he therefore predicted that lung cancer rates would eventually decline. See his "Die Zunahme des primären Lungenkrebses in den Jahren 1920-1924," *Klinische Wochenschrift* 4 (1925): 913-16. Edgar Bejach did not mention lung cancer in his 1927 survey of German antitobacco movements (*Die tabakgeegnerische Bewegung*).

31. Franz Herz, "Hat das Lungenkarzinom an Häufigkeit zugenommen?" *Medizinische Klinik* 26 (1930): 1666-69. Pfeil endorsed Herz's view in his 1935 "Lungentumoren," pp. 1198-99.

32. Hintze, "Kultur und Krebs," p. 62.

33. Cigarettes began to come under suspicion in the mid-1920s; see, for example, Robert Probst, "Die Häufigkeit des Lungencarcinoms," *Zeitschrift für Krebsforschung* 25 (1927): 431. A good overview of tobacco hazards research circa 1930 is Friedrich Schmetz, *Das Tabakrauchen im Lichte der öffentlichen Gesundheitspflege* (Berlin: Schoetz, 1930). A brilliant early critique of nontobacco explanations for the rise of lung cancer, based on experience from Cracow, is Adam Syrek, "Zur Häufigkeitszunahme des Lungenkrebses," *Zeitschrift für Krebsforschung* 36 (1932): 409-15.

34. Hermann Tillmanns does not mention lung cancer in his "Ueber Theer-, Russ- und Tabakkrebs," *Deutsche Zeitschrift für Chirurgie* 13 (1880): 519-35; nor does Hans Pässler in his "Ueber das primäre Carcinom der Lunge," *Archiv für pathologische Anatomie und Physiologie* 145 (1896): 191-278.

35. Joseph Cortyl, *Du cancer des fumeurs* (Paris: Med. diss., 1897). The expression *cancer des fumeurs* was borrowed from Bouisson's 1861 *Tribut*.

36. Hermann Rottmann, *Über primäre Lungencarcinome* (Würzburg: Med. diss., 1898), pp. 29, 52. Härting and Hesse failed to mention tobacco as a pos-

sible cause of the *Schneeberger Krankheit* (uranium miners' lung cancer), favoring arsenic, instead, as the guilty party (radiation is now the recognized culprit).

37. Fritz Lickint, "Tabak und Tabakrauch als ätiologischer Factor des Carcinoms," *Zeitschrift für Krebsforschung* 30 (1929): 349-65; compare also the fascinating review and response by Victor E. Mertens, "Zigarettenrauch eine Ursache des Lungenkrebses? (Eine Anregung)," *Zeitschrift für Krebsforschung* 32 (1930): 82-91. Herbert L. Lombard and Carl R. Doering independently of Lickint documented a high proportion of smokers among U.S. lung cancer patients in their "Cancer Studies in Massachusetts," *New England Journal of Medicine* 198 (1928): 481-87.

38. Adler, *Primary Malignant Growths*, p. 22; a connection is also posited in Theodor Fahr's discussion of the paper by Otto Teutschlaender in the *Verhandlungen der deutschen Gesellschaft für Pathologie* 19 (1923): 192, and in Schönherr, "Beitrag," p. 443. Carly Seyfarth in 1924 pointed to the high proportion of tobacco workers, innkeepers, and bartenders among Leipzig's lung cancer victims, suggesting that exposure to "tobacco particles" (including smoke) might account for that city's rising lung cancer rates; see his "Lungenkarzinome," p. 1499.

39. Fritz Lickint, *Tabakgenuss und Gesundheit* (Hanover: Bruno Wilkens, 1936), pp. 83-84. Frederick L. Hoffman was one of the first Americans to take Lickint seriously; see his "Cancer and Smoking Habits," in *Cancer . . . Comprising International Contributions to the Study of Cancer*, ed. Frank E. Adair (Philadelphia: Lippincott, 1931), pp. 62-66; also his *Cancer and Diet*, p. 489. Jesse M. Gehman was another; see his *Smoke over America* (East Aurora, N.Y.: The Roycrofters, 1943), pp. 180-84. The Viennese clinician Franz Högl in 1941 noted that 82 percent of his lung cancer patients were male and that all were heavy smokers; he also recognized that the removal of tar from cigarettes was as important as the elimination of nicotine. See his "Welche Erkrankungen sind auf Nikotinschäden zurückzuführen?" *Wiener klinische Wochenschrift* 50 (1941): 1016.

40. Fritz Lickint, *Tabak und Organismus: Handbuch der gesamten Tabakkunde* (Stuttgart: Hippokrates, 1939); compare also his "Die Bedeutung des Tabaks für die Krebsentstehung," *Deutscher Tabakgegner* 17 (1935): 27-30. Some brief notes on Lickint's biography can be found in Wilhelm C. Crecelius, "In memoriam Fritz Lickint," *Deutsches Gesundheitswesen* 15 (1960): 2283-84, and in Werner Schüttmann, "Ein Jubiläum im Kampf gegen den Tabakmissbrauch," *Münchener medizinische Wochenschrift* 131 (1989): 966-68. Lickint in 1939 was appointed a member of the Führerrat of the Deutschen Bundes für Lebensreform; see *Reine Luft* 21 (1939): 2.

41. Other German terms used at this time to designate nicotine addiction include: *Nicotismus* (Bamberger), *Nicotianismus* (Krafft-Ebing), *Nicotinsucht* (Lickint), *Fumigatismus* (Werner Kautzsch), and *Kapnomanie* (J. Stein); see Lickint, "Nikotinmissbrauch," pp. 306-9. *Tabakismus* was a German rendition of John Harvey Kellogg's "tobaccoism." The concept of "chronischer Nikotinismus" dates back at least to Leo Fürst's "Zur Prophylaxe des Coffeinismus und Nikotinismus," *Die ärztliche Praxis* 14 (1901): 351-54.