DANGEROUS MEAT? GERMAN-AMERICAN QUARRELS OVER PORK AND BEEF, 1870–1900

Uwe Spiekermann

GERMAN HISTORICAL INSTITUTE, WASHINGTON DC

In 1900, Consul General Frank H. Mason painted a grim picture of American-German trade relations, characterizing them as imbued with "hostility" and "distrust and aversion." Growing out of "mere ignorance, a failure to comprehend the many customs and details in practice in respect to which the two" nations differed, they had become "strangers to each other."[1] This was written shortly after the German decision to close the country's national market to American meat. During the three prior decades, meat quality was one of the most controversial issues in German-American trade relations. Since the early 1860s, emerging medical and bacteriological research detected and defined a growing number of zoonoses that had been unknown before. The spreading knowledge on food-related health risks led to growing concerns among experts, in the general public, and in politics. Hygienists and veterinary doctors began to establish structures to detect infected meat, but scientists, state officials, and parts of the public advocated additional and expensive preventive measures. Before the American Civil War and the German Wars of Unification, such measures were predominantly local and regional, but the strong increase in trade volume as a result of large-scale slaughterhouses, progress in canning and cooling technologies, and falling freight rates in international steamship transport, elevated the question of meat quality to the national level.[2] Since the late 1870s, quality and health standards had become a constant source of quarrels between the two rising economic and political powers.

To gain a better understanding of the changes in German-American relations before World War I, we therefore must integrate the scientific, economic, and public quarrels on meat safety and quality. Additionally, we must analyze how collective images of "German" and "American" meat, eating practices, and culture were formed and became stereotypes. The study of meat—that nineteenth-century super food—allows us to combine politics, economics, science, and public opinion. Reflecting on different concepts of "risk," "quality," and the relationships among experts, the state, and individuals will not only open a window on the different food identities of German and American citizens, but also on the substructures of so-called great politics.[3]

1 Frank H. Mason, "German-American Trade Misunderstandings," *Consular Reports* 63 (1900): 295–306, here 295–96.

2 See Richard Perren, *Taste, Trade and Technology: The Development of the International Meat Industry since 1840* (Aldershot and Burlington, 2006).

3 See Ute Frevert and Heinz-Gerhard Haupt, eds., *Neue Politikgeschichte: Perspektiven einer historischen Politikforschung* (Frankfurt a.M. and New York, 2005).

4 "Death from Trichinosis," *St. Louis Globe-Democrat*, April 2, 1881, col. G.

I. Trichinosis: Public Perceptions of a "Terrible Disease"[4]

The most prominent meat-related disease of the late nineteenth century was trichinosis. Trichinae are small roundworms, which complete all stages of development in one host within a two-week time span. They exist in a larval state in the muscles of omnivores and carnivores. Once someone has eaten infected meat, the parasites mate, and the newborn worms migrate from the intestines to the muscles, where they wait for the next host. The human body can endure a small number of these parasites without real harm, but if there are more, trichinosis will soon become dangerous or even deadly.[5]

Invasion of the Bourgeois World: Trichinae Cartoon from *Fliegende Blätter*, 1864. The German caption reads: "Mother, there's another long story about trichinae in the paper—the newspaper writers always come up with something new—it would be better if they dealt with something more important than us." Source: J. Nörr, "Die Trichinose im Spiegel alter Karikaturen," *Zeitschrift für Fleisch- und Milchhygiene* 42 (1931/32): 349.

These worms were discovered during the 1820s, but their life cycle was not understood until about 1860.[6] Within a few years, German anatomists and doctors analyzed the etiology of trichinosis,[7] which until this time had been diagnosed

5 For a current overview, see Bundesinstitut für Risikobewertung, ed., *Trichinellose: Erkennung, Behandlung und Verhütung* (Berlin, 2007); H. Ray Gamble, "Trichinae: Pork Facts—Food Quality and Safety," U.S. Department of Agriculture, http://www.aphis.usda.gov/vs/trichinae/docs/fact_sheet.htm.

6 F[riedrich] A. Zenker, "Über die Trichinen-Krankheit des Menschen," *Archiv für pathologische Anatomie und Physiologie* 18 (1860): 561–72. For details, see Rudolf Leuckart, *Die menschlichen Parasiten und die von ihnen herrührenden Krankheiten: Ein Hand- und Lehrbuch für Naturforscher und Aerzte*, vol. 2 (Leipzig and Heidelberg, 1876), 512–609.

7 For an overview, see the following studies: Böhler, *Die Trichinen-Krankheit in Plauen und die Behandlung derselben* (Plauen, 1863); Chr[istian] Jos[eph] Fuchs, *Bericht über die Trichinen-Frage betreffende Untersuchungen* (Heidelberg, 1865); Wilh[elm] Theodor Renz, *Die Trichinenkrankheit des Menschen insbesondere deren specielle Aetiologie* »

as rheumatism, typhoid fever, or "black death" (due to the peculiar discoloration of infected corpses).[8] The knowledge these researchers gained helped to explain several epidemics in central Germany, each of which had caused dozens of deaths.

Trichinae Cartoon from *Fliegende Blätter*, 1864. The German caption reads: "Yes, dear neighbor, business is bad; three weeks ago we slaughtered our father-in-law, and he certainly was fat, and we still managed to sell nothing but a small ham—it's all due to those newly invented trichinae." Source: J. Nörr, "Die Trichinose im Spiegel alter Karikaturen," *Zeitschrift für Fleisch- und Milchhygiene* 42 (1931/32): 350.

Before 1880, 8,500 cases of trichinosis were documented in Germany, resulting in 513 attributed deaths.[9] Now doctors no longer wrote about "harmless worms."[10] On the contrary, "fear and horror" became common,[11] ideas of accelerating infection spread, and *Trichinenfurcht* (fear of trichinae) became a well-known word in German.[12] The public "terror over such a great food-borne danger"[13] spawned detailed statistics and case studies, which helped to

» *und öffentliche Prophylaxis: Eine Studie an der Hand der Kratz'schen Schrift über die Trichinenepidemie zu Hedersleben* (Tübingen, 1867); A[ndreas] C[hristian] Gerlach, *Die Trichinen: Eine wissenschaftliche Abhandlung nach eigenen, besonders in sanitäts-polizeilichen und staats-thierärztlichen Interesse angestellten Versuchen und Beobachtungen*, 2nd ed. (Hanover, 1873).

8 Fr[iedrich] Mosler, "Ueber eine Trichinen-Epidemie aus dem Jahre 1849," *Archiv für pathologische Anatomie und Physiologie* 33 (1865): 414–22, here 415.

9 Wardell Stiles and Albert Hassall, *Trichinosis in Germany* (Washington, DC, 1901), 35.

10 Karl Haubner, *Ueber die Trichinen mit besonderer Berücksichtigung der Schutzmittel gegen die Trichinenkrankheit beim Menschen* (Berlin, 1864), 5.

11 Ibid., 3.

12 J. Samter, "Erkrankungen nach dem Genuss von Schweinefleisch, Trichinen?" *Archiv für pathologische Anatomie und Physiologie* 29 (1864): 215–21, here 217; V[ictor] Hensen, "Die Trichinen in Bezug auf die Mikroskopie," *Archiv für mikroskopische Anatomie* 2 (1866): 132–37, here 132.

13 Rud[olf] Virchow, *Darstellung der Lehre von den Trichinen, mit Rücksicht auf die dadurch gebotenen Vorsichtsmaaßregeln, für Laien und Aerzte*, 2nd enlarged ed. (Berlin, 1864), 3.

inform doctors and the public about the symptoms and causes of trichinosis.[14]

In the mid-1860s, public and political attention shifted to questions of therapy and prevention. German fears led first of all to public education. Regional authorities advocated the proper cooking of meat and warned against eating raw and underdone pork, especially sausages and ham.[15] Unfortunately, such dishes were an essential element in the diets of the middle and lower classes and of German food culture and identity. Experts and politicians knew that they could not change such habits in a short time: "The big and small trichinosis epidemics have shown how invincible the people's penchant for eating raw pork is and how powerless the risk of trichinosis is against it." Therefore, the most important German prevention measure was to examine meat microscopically.[16]

Based on sound scientific evidence, the "naked eye" of the experts was armed with efficient visualization machines to differentiate between dangerous and wholesome meat. German science was both supposed and able to prevent an epidemic spread of trichinosis, even if the average person behaved irrationally. Pride in the achievements of modern science led to an immense professionalization—around 1880 some 25,000 inspectors worked to ensure the safety of the German pork consumer. But this expensive control system institutionalized bourgeois ideas about the interaction between the individual and the state in Germany. The Liberal politician and anatomist Rudolph Virchow proclaimed

> What the individual chooses to do is his own affair, but the general public has the task of keeping at bay, as much as possible, general dangers to which the individual may unknowingly fall prey through no fault of his own, and especially of standing by those people who may harm others without intending to, and, where necessary, of monitoring them so that they can truly conduct their activity for the benefit of their fellow citizens.[17]

In Germany, state bureaucrats, including public health officials, had a civilizing mission, which included the protection of the individual even from irrational and unhealthy eating habits.

The situation in the United States was different. During the 1860s, trichinosis was recognized as a foreign, primarily German epidemic.

14 See A. Fiedler, "Statistische Mittheilungen über sämmtliche vom Jahre 1860 bis 1865 im Königreiche Sachsen beobachtete Trichinenepidemien und Einzelfälle," *Archiv der Heilkunde* 7 (1866): 445–48; Müller, "Die Verbreitung der Trichinenkrankheit unter den Schweinen im Jahre 1867," *Magazin für die gesammte Thierheilkunde* 35 (1869), 163–73.

15 See "Circular-Verfügung an sämmtliche Gemeindevorstände und Ortspolizeiverwaltungen im Herzogthume [Anhalt]," *Zeitschrift für Medicin, Chirurgie und Geburtshülfe*, n.s., 3 (1864): XL–XLI, here XL. Similar: Haubner (1864), 19 and 43. A detailed overview of the different raw, smoked, and semi-cooked pork products and dishes is presented in Renz (1867), 63–86.

16 Quote: Gerlach, *Die Trichinen*, 61. The microscopic examination of meat was closely linked to the establishment of communal slaughterhouses. See Dorothee Brantz, "Animal Bodies, Human Health, and the Reform of Slaughterhouses in 19th-century Berlin," in *Meat, Modernity, and the Rise of the Slaughterhouse*, ed. Paula Young Lee (Durham, 2008), 71–85, 258–264.

17 Virchow, *Darstellung der Lehre*, 76.

As one newspaper described it, "the victims are 'eaten up alive by a legion of worms hardly so thick as a human hair, that have worked their way into the tissue of their flesh, their muscles and their nerves.'"[18] Germany's microscopic examination system was recognized as an expression of the nation's efficiency and its first-class status in the field of medicine. But perceptions changed. As medical knowledge improved, more and more cases of trichinosis were detected in the U.S. Indeed, American pork was widely infected with trichinae. Well-founded rumors "of the existence of the disease" spread in several large East Coast and Midwestern cities during the late 1860s.[19] Doctors warned people not to panic. They should not believe "in the sweeping stories told about the deadly character of pork."[20] American consumers got over the initial scare, although American newspapers continued reporting on cases of trichinosis and resultant deaths in sensational ways. This attitude did not result from official statements, which were quite similar to the German ones in proclaiming "that pork thoroughly salted and smoked, and well cooked, is as harmless as pork ever has been."[21] The fundamental difference lay in the countries' respective eating and cooking practices: In the United States, it was uncommon to eat raw or underdone pork products.

Weapons of Mass Inspection: Trichinae Microscopes, late 1870s. Source: *Pharmaceutische Centralhalle für Deutschland* 21 no. 15 (1880): VI.

The parasites seemed to be no real health problem, because most of them were destroyed by boiling or roasting. Even the large German immigrant colonies in the East and Midwest had changed their preparation techniques and eating habits remarkably. In the New World, German immigrants consumed even more sausages, ham, and other pork products—but a growing quantity was not

18 "Trichinosis," *The Daily Cleveland Herald*, January 31, 1886, col. C.

19 "Trichinosis in New York," *Milwaukee Daily Sentinel*, March 26, 1866, col. D.

20 [Trichinosis reported in Springfield], *The Daily News and Herald*, April 8, 1867, col. A.

21 "Trichine in Europe: Letter from the American Consul at Elsinore—Results of Recent Examinations into the Nature of the Disease," *New York Times*, June 1, 1866, 8.

fresh and, therefore, risky, but mass-produced and preserved. The relatively small number of deaths—less than five per year on average—did not justify an expensive examination system, because the responsibility for health was individualized: Being infected with trichinosis was caused by eating raw meat—and this was an easily avoidable private risk.

II. The German-American Pork War, 1880-1891

This background allows us to view the so-called German-American Pork War, which lasted from 1880 to 1891, from a broader perspective than has been offered by diplomatic and traditional economic history.[22] American officials were fully aware of German health concerns about American pork. The German examination system revealed that 4 percent of American pork products contained trichinae;[23] similar percentages were found for German hogs. The import figures were highest in 1873 and 1874, and then declined and finally stagnated long before German countermeasures became evident.

This decline was partly a result of the growing awareness of the risk associated with the consumption of cheap American meat, which was primarily consumed by urban workers in western and central Germany.[24] During the mid-1870s, American veterinarians called attention to an "alarming spread of trichinosis."[25] They recommended changes in animal farming, including, first of all, that indoor breeding become more common to prevent pigs from eating rats, mice, and other vermin. At the same time, American diplomats recommended a "rigid and trustworthy examination"[26] before shipping, but this seemed too expensive. Therefore, it was not surprising that trade restrictions were soon imposed, especially when Germany followed the Americans' highly protective post-Civil War policy with the tariff of 1879.[27] Germany protected its agriculture against the "American grain invasion," although the large and

22 See Louis L. Snyder, "The American-German Pork Dispute, 1879–1891," *Journal of Modern History* 17 (1945): 16–28; John L. Gignilliat, "Pigs, Politics, and Protection: The European Boycott of American Pork, 1879–1891," *Agricultural History* 35 (1961): 3–12; Suellen Hoy and Walter Nugent, "Public Health or Protectionism? The German-American Pork War, 1880–1891," *Bulletin of the History of Medicine* 63 (1998): 198–224; Dorothee Brantz, "How Parasites Make History: On Pork and People in Nineteenth-Century Germany and the United States," *Bulletin of the German Historical Institute* 36 (2005): 69–79; Dwayne D. Byerly and Justin Kastner, "U.S. Pork under the Microscope: A Study of Export Certification and Regulatory Compliance during the Pre-Jungle Era," draft MS for the Transatlantic Studies Association annual conference, University of Dundee (2006), http://frontier.k-state.edu/ResearchAndAnalysis/Commentary/TSA_Paper_2006-06-09_FINAL.pdf; Elizabeth L. Chalecki, "Knowledge in Sheep's Clothing: How Science Informs American Diplomacy," *Diplomacy and Statecraft* 19 (2008): 1–19, here 3–5.

23 "Begründung, Beantwortung und Besprechung der Interpellation der Abgeordneten Richter (Hagen) und Rickert, betreffend die fernerweite Zulassung der Einfuhr amerikanischer Fleischwaaren (Nr. 107 der Anlagen)," *Stenographische Berichte über die Verhandlungen des Reichstages. V. Leg., II. Sess. 1882/83*, vol. 2 (Berlin, 1883), 810–27, here 822.

24 See the data in Joseph Nimmo, *The Production of Swine in the United States and the Transportation, Consumption, and Exportation of Hog Products with Special Reference to the Interdiction of American Hog Products from France and Germany* (Washington, DC, 1884), 10.

25 Arthur Hazlewood, "Trichinae," *Third Annual Report of the Secretary of the State Board of Health of the State of Michigan for the Fiscal Year Ending Sept. 30, 1875* (Lansing, 1876), 27–37, here 35.

26 "Consular Correspondence," *New York Times*, July 7, 1878, 1. See also "American Pork in Germany," *New York Times*, July 31, 1878, 1.

27 See Jeannette Keim, *Forty Years of German-American Political Relations: A Thesis* (Philadelphia, 1919), esp. 66–67.

growing number of workers and middle-class consumers suffered from rising prices.

The imperial German decree of June 23, 1880, however, which prohibited the import of all types of American pork except ham and bacon, had different, primarily health-related reasons. The decree was part of a European-wide ban on American pork, which started in 1879 in Italy, Hungary, and Austria.[28] The implicit message to Americans was that they should improve the hygienic quality of their products and establish an examination system similar to Germany's. While many European nations lifted their import restrictions in the early 1880s, partly to avoid retaliation, Germany expanded its ban in 1883 to include all American pork.[29] Despite intense diplomatic pressure and the threat of retaliation concerning German wine, the imperial government insisted that the U.S. reform its slaughterhouses and packaging methods and, most importantly, that it introduce a reliable system of microscopic examination for exported pork. After a decade of intense quarrels and the first, unsatisfying, American Meat Inspection Act of 1890, the new American Act of 1891 mandated compulsory inspection and labelling of exported meat. Health arguments had succeeded, although the withdrawal of the German prohibition in 1891 was prompted in part by increasing pressure on German sugar imports to the U.S.[30]

Americans, though, were not easily convinced. For the U.S. government and meat packers, the German import prohibition was unfair and unjustified. From 1880, the trichinae question was highly politicized. By 1884, four official reports had analyzed the American pork business and the trichinae question.[31] Unfortunately, the results called the official position—that its products were wholesome and of high quality—into question. Trichinae were as common in America as in Europe, and several American experts conceded even higher percentages—up to 8 percent.[32] The reports recommended that a system of microscopic meat examination be established, at least for exported hogs. This recommendation, however, was not primarily about public health, but intended to support the export of meat. The consumers were proclaimed responsible for any outbreak of the disease. As *The New York Times* stated, "Legislation can do very little with trichinosis, except by aiding to diffuse information."[33]

While experts viewed American and German trichinae-related problems in a sophisticated fashion, many American newspapers argued in a more nationalist way: "The greatest war, since the time

28 See Alessandro Stanziani, "Food Safety and Expertise: The Trichinosis Epidemic in France, 1878–1891," *Food & Foodways* 10 (2003): 209–37.

29 See "Prohibition of American Pork," *Appleton's Annual Cyclopaedia of the Year 1883* (New York, 1885), 643–48.

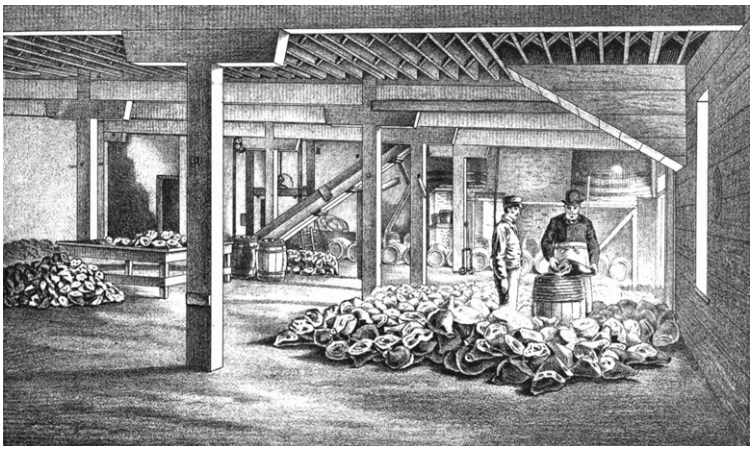
30 See Keim, *Forty Years*, 73–78.

31 Nimmo, *Production of Swine*; W.C.W. Glazier, *Report on Trichinae and Trichinosis* (Washington, DC, 1881); D[aniel] E. Salmon, "Trichinasis," *First Annual Report of the Bureau of Animal Industry for the Year 1884*, ed. U.S. Department of Agriculture (Washington, DC, 1885), 475–92. Information on the Loring Report can be found in [No Title], *Washington Post*, May 2, 1884, 6.

32 "Trichinosis," *Georgia Weekly Telegraph and Georgia Journal & Messenger*, December 24, 1878, col. B; "The Prevention of Trichinosis," *The Medical Record* 19 (1881): 406–407, here 406; "Trichinosis, or the Pork Disease," *The Phrenological Journal and Life Illustrated* 79 (1884): 95–98, 160–62, here 97.

33 "Facts about Trichinae," *New York Times*, March 31, 1881, 4.

of Frederick, called 'The Great,' which Germany has undertaken, is Bismarck's war against the American pig."[34] Newspapers saw "underhanded warfare against American products" that was grounded in concerns for the protection of East Prussian landholders, not health concerns.[35] They asked Germany to provide evidence of illness and death caused by American pork—and they questioned the official German position, which referred to German medical authorities.



High quality meat? Voluntary Inspection of Ham, Chicago, 1888. Source: H.C. Clark, "Meat Industries of the United States," in *Fourth and Fifth Annual Reports of the Bureau of Animal Industry for the Years 1887 and 1888* (Washington, DC, 1889), 359-75, plate X.

Most American newspapers emphasized retaliation, because they believed that this was the only language Germans would understand.[36] The U.S. Senate gave the president options for such a policy, but he did not use them, partly because he felt this would be "equivalent to a declaration of war."[37] In the U.S. discourse on the subject, one could find claims that American products should undergo "proper inspection," but, by and large, health-related problems involving meat consumption were disregarded.[38] American meats were characterized as "the best,"[39] and the German ban was presented as "simply a sanitary pretext for protection,"[40] not founded on public opinion,[41] but introduced by an authoritarian regime that denied its urban consumers a choice and indoctrinated the public with "prejudicial judgment against the swine exports."[42] Not the government, but the Liberal opposition, was presented as the voice of the real Germany.[43]

34 "The War on the American Pig," *New York Daily Tribune*, March 21, 1883, 5.

35 "American Pork in Europe," *New York Times*, April 14, 1881, 1.

36 See, for instance, [No Title], *New York Times*, December 29, 1883, 4; "Prohibition of American Pork, *Washington Post*, January 10, 1884, 1. Self-criticism can be found in "Reform instead of Retaliation," *Washington Post*, March 26, 1884, 2; "A Strong Policy," *New York Times*, June 25, 1884, 4.

37 "Our Relations with Germany," *Washington Post*, Feb. 16, 1884, 1.

38 [No Title], *New York Times*, January 15, 1884, 4; "The Cattle Question," *Washington Post*, January 17, 1884, 2.

39 "Shall We Retaliate? The Senate Discusses the Inhibition of American Meats," *Washington Post*, January 16, 1884, 1.

40 [No Title], *New York Times*, January 4, 1884, 4.

41 "Mr. Sargent and Mr. Frelinghuysen," *Washington Post*, April 5, 1884, 2.

42 "Suggesting Retaliatory Measures," *Washington Post*, January 31, 1884, 1.

43 "The Bismarck Insult," *Washington Post*, March 11, 1884, 1.

Such one-sided political reporting was quite typical for the press in the US—and in Germany. However, drastic changes in the way trichinosis was presented in America ran parallel to this debate. From the early 1880s, trichinosis became German—that is, it was presented as a disease predominant among German immigrants. If trichinosis victims had any sort of German background, this fact was emphasized, whereas victims of other ethnic backgrounds—with the exception of African Americans—were merely listed by name: The "German family named Rosenberg" and "Carl Gall, German-boarding house keeper" were examples in a long list of names and cases intended to de-Americanize trichinosis.[44] Moreover, German victims were often portrayed unfavorably. For instance, "they ate greedily without cooking."[45] Or: "Germans are singularly fond of eating ham without preparing it for the table, and apparently cannot be induced to exercise self-restraint in this respect, even by a knowledge of the risk they run."[46] Similarly, the eating of raw food became the most prominent marker of un-American eating habits. This exclusion from the American table was supported by the typical presentation of trichinosis cases as isolated family tragedies. German immigrants could change their diets and become members of the American nation. Those who remained outsiders, however, suffered diseases typical of Imperial Germany.

And what about Germany during the 1880s? Although critics of import restrictions within Germany were a political and academic minority and the idea of "dangerous" American meat was widely accepted,[47] there were serious conflicts in Germany, too. First of all, Germany was a divided nation. The microscopic examination system was typical in Prussia and Saxony, while most southern states failed to establish similar structures. Germany had never really had a national diet.[48] Regional differences and regional food identities were prevalent in Imperial Germany. Raw meat was uncommon in southern, western, and even larger parts of eastern Germany, where the trichinosis death toll was similar to that in the United States and where compulsory meat inspection was never introduced. Nonetheless, most states accepted the pork ban and were convinced that American pork was dangerous for German meat consumers.

Germany's Liberal opposition was the first group to question this acquiescence. They asked, "where are the sick and dead who are

44 "Trichinosis—Its Cure and Prevention," *Galveston Daily News*, January 25, 1881, col. H; "Death from Trichinosis," *St. Louis Globe-Democrat*, December 24, 1883, col. E.

45 "Death from Trichinosis," *Cleveland Herald*, March 19, 1884, col. E.

46 "Another Terrible Case of Trichinosis," *The North American*, March 30, 1881, col. A.

47 See May, "Die Trichinenkrankheit der Menschen und die Schweinehaltung," *Zeitschrift des landwirthschaftlichen Vereins in Bayern* 69 (1879): 265–76, here 276.

48 Uwe Spiekermann, "Deutsche Küche—eine Fiktion: Regionale Verzehrsunterschiede im 20. Jahrhundert," in *Ernährung und Raum: Regionale und ethnische Ernährungsweisen in Deutschland*, ed. Kurt Gedrich and Ulrich Oltersdorf (Karlsruhe, 2002), 47–73.

suffering from trichinosis because of the character of American pork?" [49] They wanted to offer consumers the choice of foreign meat, because they felt that consumers should be able to make decisions about risk-taking behavior themselves.[50] Pure and healthy foodstuffs, they believed, seemed to be a fiction anyway. Therefore, individuals as free citizen-consumers should be able to take responsibility for their own actions. The Liberals offered a different idea of state-consumer relations that was common among large segments of the urban bourgeois middle and upper classes, but which had lost influence during the late nineteenth century.

Even harsher criticism came from German doctors and hygienists.[51] First, they questioned the reliability of the German microscopic inspection techniques, which were often conducted "with foolish eyes or with imperfect microscopes."[52] While some of these experts and the vast majority of veterinarians argued for higher professional standards and improved microscopes, critics advocated that this expensive German peculiarity should be stopped, because it wasted a large amount of money in the name of propagating a delusional and fatal idea of safety. More than 30,000 trained German inspectors[53] were only able to reduce the number of fatalities from twenty per year during the 1880s to ten during the following decade. Meat quality improved in general, but the system failed to guarantee safe German meat. Second, although some doctors argued against the "barbarian habit of eating raw pork,"[54] many continued to exhort people to consume raw pork because the nutritional value of animal protein was judged more important than the health risks.[55] Few demanded a public ban on all raw meat products. Improving the German daily diet and overall health meant fighting bad habits and prejudices. This fight for a new rational, scientific German and—in some respects—international food identity would be complicated, they acknowledged, but it had to be undertaken to exterminate trichinosis. The German governments shared this long-term goal, and official public brochures favored such a change.[56]

But the governments did not want to force people to eat in a different way: "The government cannot effect a change in the direction of taste by means of compulsion."[57] Their ideal of freedom included the freedom to be foolish. It was based on the idea of a weak, greedy, and unreasonable consumer who was dominated by tradition and had to be guided by a wise German government and scientists.

49 *Begründung* (1883), 810 (Richter).

50 *Begründung* (1883), 825 (Barth).

51 A good summary of these arguments was given by Wasserfuhr, "Die angebliche Gesundheitsschädlichkeit des amerikanischen Schweinefleisches," *Hygienische Rundschau* 1 (1891): 246–52.

52 "In wie weit hat sich die in verschiedenen Gegenden Deutschlands eingeführte obligatorische Trichinenschau zur Verhütung der Trichinenkrankheit bewährt," *Tageblatt der 57. Versammlung Deutscher Naturforscher und Aerzte* (Magdeburg, 1884): 279–85, here 280 (Rupprecht).

53 The numbers are discussed by Stiles and Hassall, *Trichinosis in Germany*, (1901), 29.

54 *Gegenden*, 1884, 283 (Wasserfuhr).

55 See Leuckart, *Die menschlichen Parasiten*, 597.

56 See *Belehrung über die Entstehung und Verhütung der Trichinenkrankheit bei den Menschen* (Dresden, 1884).

57 *Begründung* (1883), 823 (Köhler).

Although the "Pork War" lasted more than a decade and the official positions of the German and American governments remained controversial and contradictory, a closer look at the internal quarrels reveals both convergence of opinion and new images of "Germans" and "Americans." In the early 1890s, intensified cooperation was still an option. When in 1891 Americans established their meat examination system only for export, many U.S. experts, acknowledging German health concerns, claimed "that a similar system should be established for the examination of pork intended for home consumption."[58] And German experts were aware that even an army of inspectors was not strong enough to successfully fight eating habits and irrational ideas about tasty and "strong," bloody food. These experts commented on the American legislation respectfully.[59] But the quarrels continued during the 1890s, and, instead of cooperating, Germans and Americans became more and more estranged from one another.

III. Growing Danger: Pleuro-Pneumonia, Trichinosis, and Bovine Tuberculosis

One reason for even more intense conflicts between the German and U.S. governments was the knowledge production of modern science. Breakthroughs in bacteriological research not only spawned new etiologies of killer diseases such as cholera, tuberculosis, and typhus, but widened and specified the range of relevant animal diseases. Since the early 1880s, the sanitary protection of national markets was expanded from exclusively human health issues to encompass livestock as well.[60]

Hog cholera in the U.S. drove the United Kingdom—the dominant free-trade nation of the world and by far the most important customer of American products—to ban pork imports. Even more severe was the highly infectious, so-called Texas fever or pleuro-pneumonia. Although these zoonoses did not harm human beings, it became necessary to quarantine and rigorously slaughter livestock to prevent the worldwide spread of such animal diseases.[61] Consequently, early U.S. reports on trichinosis advocated additional legislation and increased government intervention.[62] While newspapers criticized foreign governments for their unfair exclusion of U.S. meat, comprehensive measures were taken to exterminate pleuro-pneumonia.[63]

The stringent and expensive measures of both the U.S. and foreign governments were quite successful, and threats to quarantine the

58 J.H. McCollom, "Trichinosis," *Boston Medical and Surgical Journal* 127 (1892): 59–61, here 61.

59 See [Robert] Ostertag, "Die Einfuhr amerikanischen Rind- und Schweinefleisches," *Zeitschrift für Fleisch- und Milchhygiene* 1 (1890–91): 125–28.

60 See Janet Wellhousen Crouse, "The Decline of German-American Friendship: Beef, Pork, and Politics, 1890–1906" (PhD diss., University of Delaware, 1980), esp. chs. 4-6.

61 See "The Veterinarians," *St. Paul Daily Globe*, November 17, 1886, 1.

62 "Trichinosis Again" (1881), 495.

63 See "Investigation of Pleuro-Pneumonia," *First Annual Report of the Bureau of Animal Industry for the Year 1884*, ed. U.S. Department of Agriculture (Washington, DC, 1885), 8–167.

Chicago stockyards led to improved testing and livestock breeding.[64] In 1891, Secretary of Agriculture Jeremiah Rusk announced that pleuro-pneumonia had been successfully exterminated from American soil and foreign nations should learn from America's advanced veterinarian institutions.[65] As a result, the U.S. government stopped the importation of cattle from all over the world.[66]

But European states—including Germany—struck back. In 1893, hay was seized at European ports because it contained pleuro-pneumonia bacteria.[67] In 1894, a case of Texas fever resulted in a ban on the import of U.S. cattle and fresh beef to Germany.[68] Changes in the sugar trade provided the prime impetus for such measures, but they could also be justified with regard to problems with the American inspection system.[69] While U.S. diplomats and newspapers criticized this ban as an "apparently needless and harsh measure,"[70] the German public was not really interested in such technical questions, which they believed should be delegated to experts. Such debates again confirmed public concerns over "dangerous" American meat. And they were used by the agrarian lobby of northern and western German meat producers to question the import of foreign meat in general.

Another good example of the continuity of transatlantic quarrels was the ongoing debate on the quality of the American meat inspections. When Germany withdrew the pork ban in 1891 and accepted American certificates of inspection, American newspapers celebrated these steps as German acceptance of the wholesomeness of American pork.[71] However, German local and regional authorities were allowed to re-inspect some American pork products. When this practice started in 1892, it generated American complaints of hidden trade restrictions and a lack of trust in transatlantic trade relations. On the other hand, German inspectors did manage to detect trichinae-infected American pork.[72] Although any

64 "Pleuro-Pneumonia: Deliberations of the Live Stock Commission," *Salt Lake Daily Herald*, September 24, 1886, 1; "A Stock Yard's Scare," *The Omaha Daily Bee*, May 28, 1887, 1.

65 Department of Agriculture. "Third Annual Report of Secretary Rusk," *The Record-Union* 82 (November 9, 1891): 1; more skeptical is "Pleuro-Pneumonia: Uncle Jerry Officially Declares We Have No More of It," *St. Paul Daily Globe*, September 26, 1892, 4.

66 Thielemann to Olney, August 7, 1896, *Papers Relating to the Foreign Relations of the United States* (Washington, DC, 1897), 164–68, here 164.

67 "American Hay," *New York Times*, October 28, 1893, 4; "European Legislation on the Food Question," *The Morning Call*, January 3, 1895, 6.

68 "Not Quite Defenseless: This Country in Position to Bring Germany to Terms," *New York Times*, November 16, 1894, 3.

69 See "Prohibition of the Importation of American Cattle," *Papers* (1897), 163–85.

70 Gresham to Runyon, telegram, October 27, 1894, *Papers Relating to the Foreign Relations of the United States*, Washington, DC, 1895, 230.

71 See "To Let In American Pork," *New York Daily Tribune*, April 5, 1891, 5; "American Pork: Prohibition against the Importation into Germany Removed," *The Morning Call* 70, September 4, 1891, 1; "American Pork in Germany," *New York Daily Tribune*, September 17, 1891, 6.

72 "Trichinenfunde in neuerdings eingeführtem amerikanischem Schweinefleisch," *Zeitschrift für Fleisch- und Milchhygiene* 2 (1891–92): 61; "Vergiftung nach dem Genuss amerikanischem Pökelfleisches," *Zeitschrift für Fleisch- und Milchhygiene* 5 (1894–95): 121–22, here 121.

inspection system would miss some cases—more than 30 percent of the German trichinosis cases resulted from meat inspected by German professionals—such results were presented and discussed over and over again.[73] The American side correctly argued that these results only showed "the impossibility of discovering all trichinous meat in the first inspection,"[74] but German officials annoyed importers by charging them for the additional costs of the second inspection. This battle over the reliability of scientific meat inspection was an abstract discussion on the quality of American meat and German skills. Several German veterinarians traveled to the U.S. to report on the sanitary conditions in the meat business there, spurring Americans accusations of "a sort of espionage over all the principal abattoirs of the United States."[75] Several travel reports portrayed American producers as greedy capitalists who sold the most inferior quality possible and who did not care about the health concerns of the broad majority of consumers.[76]

Government Microscopic Inspection, Union Stock Yards, Chicago. Source: J[onathan] Ogden Armour, *The Packers, the Private Car Lines and the People* (Philadelphia, 1906), plate following 368.

But Germany was not the only country inspecting its trade partner. In 1898–99, the U.S. Department of Agriculture sent a young scientist to Germany. He published an impressive analysis of the German

73 "In the Fatherland," *Los Angeles Times*, February 7, 1897, 2; "Bread Higher in Germany," *New York Times*, May 22, 1898, 19.

74 Sherman to White, November 20, 1897, *Papers Relating to the Foreign Relations of the United States* (Washington, DC, 1898) 190–91, here 191.

75 "Good American Meat: Farmer Morton Says It is All First Class. No Pneumonia in Cattle. And not a Trace of Trichinosis in the Hogs," *The Morning Call*, January 15, 1895, 4. An example of German travel reports is Heiss, "Amerikanische Fleischbeschau," *Zeitschrift für Fleisch- und Milchhygiene* 9 (1898–99): 163–67. At the same time, German free trade supporters visited the U.S. and judged the American examination system positively; for instance, "Hog Inspection in Germany," *New York Times*, November 7, 1899, 2. Problems of meat inspection and the sanitary conditions of large packers were discussed in the U.S. long before Upton Sinclair's *The Jungle* (1906). See "No Pork Certificates: American Meat Has Entered Germany without Inspection," *Salt Lake Herald*, October 4, 1898, 2.

76 "American Canned Meats are Good: Secretary Morton Says German Criticisms Are without Foundation," *New York Times*, August 6, 1895, 9.

meat inspection system whose inefficiencies he laid out precisely. The German system cost $3-3.5 million per year, 25 percent more than American expenses for the entire Department of Agriculture.[77] This fundamental attack on German pride was scientifically solid, but it merely served to deepen Americans' and Germans' contradictory perceptions of each others' quality standards and health issues.

These debates garnered a lot of attention and cost a lot of money. But at the same time, both countries failed to make basic improvements to reduce the incidence of bovine tuberculosis, a zoonosis that was not identified before 1882. During the late 1880s and early 1890s, both Germany and the U.S. came to realize that at least a fifth of the cattle were infected and that humans could be contaminated with tuberculosis simply by consuming affected meat or milk.[78] Although both nations instituted rigorous measures at the start of the crisis, including mandatory slaughtering, Germany and the U.S. decided in the early 1890s to stop such consistent health prevention, because it was simply too expensive to kill 20–25 percent of livestock.[79]

While experts and governments were fighting diseases that led to a relatively small number of deaths, tuberculosis was still the dominant cause of death in both countries—and bovine tuberculosis generated a yearly death toll of up to several thousand people, above all babies and toddlers.[80] Both governments failed to concentrate on more relevant sanitation measures to fight this "most subtle, insidious and baneful disease that the human race is heir to."[81] The transatlantic meat quarrels were thus fought over territory that was initially relevant but which grew more and more self-perpetuating by the end of the nineteenth century.

Despite this self-perpetuating quality, one-sided perceptions, prejudices, and plain economic interest took on an incalculable dynamic. By 1899, German-American diplomats had finally found a compromise for the new meat arrangement, which was closely linked to the introduction of a compulsory meat examination in the German Empire.[82] Meanwhile, however, meat had become such a crucial public topic that it could no longer be handled simply with old-fashioned diplomacy. The compromise came under fire, first, from the southern German states, which did not want to introduce expensive and—in some ways—ineffective inspection systems. Second, a center-right coalition fought against concessions to American

77 Stiles and Hassall, *Trichinosis in Germany*, 32; see James H. Cassedy, "Applied Microscopy and American Pork Diplomacy: Charles Wardell Stiles in Germany, 1898–1899," *Isis* 62 (1971): 4–20. It should be noted that Stiles still praised the German inspection system as "the most elaborate system of public hygiene ever put into practice" in "Trichinosis and Trichina Inspection," *Journal of the American Medical Association* 36 (1901): 1706.

78 See Barbara Orland, "Cow's Milk and Human Disease: Bovine Tuberculosis and the Difficulties Involved in Combating Animal Diseases," *Food & History* 1 (2003): 179–202.

79 See O. Malm, "Die jetzige Bekämpfung der Haustiertuberkulose," *Zeitschrift für Tuberkulose und Heilstättenwesen* 6 (1904): 13–42.

80 See "Bovine Tuberculosis: Widely Discussed by the Veterinary Association," *The Daily Picayune*, September 6, 1896, 4.

81 "Bovine Tuberculosis: Its Relation to the Health of the General Public," *Morning Oregonian*, December 21, 1894, col. B.

82 "The Reichstag Reassembles: Prof. Stiles Says Germany Will Act with Fairness in the Question of Meat Inspection," *New York Times*, January 11, 1899, 7; "As to American Emats [*sic*]," *Los Angeles Times*, May 10, 1899, 2.

importers and in favor of domestic agriculture. It exploited sanitation problems and the public perception of supposedly "dangerous" American meat to increase the German hygienic standards to a prohibitive level.[83]

Some cases of fraud in the labeling of imported pork helped to sway the majority of representatives to pass the new Imperial Meat Inspection Law in the German parliament in 1900. This brought the ongoing transatlantic meat trade to an end, although Social Democrats and Liberals again fought to preserve the possibility of cheap imported meat and autonomous choices for urban consumers. After 1903, exorbitant and impractical inspection procedures closed the German market to American meat.

While Germans still expected that the day would come "when America will thank Germany for having been the cause of introducing meat inspection regulations,"[84] the U.S. government decided to stop its own meat inspection system in 1906.[85] Yet German officials were not alone in having to recognize that civil society and the political mass market achieved a different quality during the Progressive Era. Since the late 1890s, for example, the American Pure Food Movement was using many arguments that had been presented by German hygienists and chemists for more than three decades.[86] Americans grew ever more aware of the sanitation problems of the Chicago meat packers, and they came to doubt the wholesomeness of American meat products.[87] One argument in favor of stricter standardization and more intense regulation of the food sector after 1906 was the fact that up to 100 million pounds of trichina-infected meat was hitting the domestic market every year.[88] When America's Pure Food Law was passed in 1906, it marked a milestone in the federal government's efforts to assume responsibility for the growing number of urban consumers who did not really know what they were eating. Despite such efforts, in the United States, meat inspections for trichinosis were not re-established or even used for the domestic market.[89] As a consequence, the amount of trichinae in the U.S. remained high. Between 1901 and 1915, 240 American citizens died of trichinosis; probably 5 percent of the population suffered from this disease at some in their lives, and trichinae were "of common occurrence" in the U.S.[90] As a consequence of the lack of meat inspections, the health situation worsened during the following decades. In the late 1930s, it became evident that the U.S. had "the greatest problem in trichinosis of any country in the

83 "German Meat Inspection," *New York Times*, March 26, 1900, 2; "The German Meat Bill," *Washington Post*, May 30, 1900, 6.

84 Jackson to Hay, November 17, 1898, *Papers Relating to the Foreign Relations of the United States* (Washington, DC, 1902) 485.

85 "Blow to Packers: Abolition of Government Inspection of Meat," *Washington Post*, December 20, 1901, 1.

86 See Otto Noack, "Trichinosis," *Journal of Comparative Medicine and Veterinary Archives* 17 (1896): 108–16.

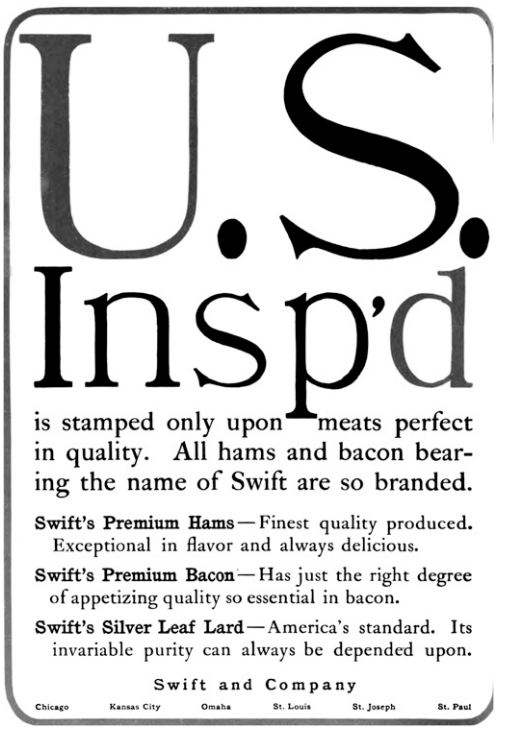
87 See Hermann Hirschauer, *The Dark Side of the Beef Trust* (Jamestown, 1905); W.K. Jaques, "A Picture of the Meat Inspection: The Authority of the United States Inspectors Does Not Extend to Meat for Domestic Use," *The World's Work* 12 (1906): 7491–7506; Caroline Hedger, "The Unhealthfulness of Packingtown," *The World's Work* 12 (1906): 7507–10.

88 Albert Leffingwell, *American Meat and Its Influence upon Public Health* (New York and London, 1910), esp. 92–95.

89 See James Harvey Young, *Pure Food: Securing the Federal Food and Drugs Act of 1906* (Princeton, 1989), and Donna Wood, "The Strategic Use of Public Policy," *Business History Review* 59 (1985): 403–32.

90 B[rayton] H. Ransom, "The Effect of Cold upon the Larvae of Trichinella Spiralis," *Science*, n.s., 39 (1914): 181–83, here 182; *Annual Report of the Surgeon General of the Public Health Service of the United States for the Fiscal Year 1916* (Washington, DC, 1916), 39.

civilized world."[91] A National Institutes of Health report from the early 1940s found that one-sixth of the U.S. population was infected.[92] Improvement in swine production and feeding as well as the wide-scale use of home freezers and commercial lockers led to a notable reduction of trichinosis during the 1950s and 1960s, while public health policy remained weak.[93]



Marketing is Everything: Voluntary Inspection Stamp by Swift & Co., 1900. Source: *Cosmopolitan* 29, no. 2 (June 1900), ii.

Conclusion

Our analysis of the German-American meat quarrels of the late nineteenth century facilitates a deeper understanding of the changes in German-American relations before World War I because it integrates many aspects that have previously been neglected.

First, the German-American meat quarrels can sensitize us to the importance of images and prejudices in politics in the late nineteenth century. From the 1860s onwards, modern science generated new knowledge that not only clarified the causes of diseases, but also advised people to eat and prepare food in ways that often clashed with their traditions and culture. Other actors—politicians, journalists, and consumers—often did not accept such advice. Instead, they combined new scientific knowledge with the particular framework of class, nation, or region. Transatlantic debates precipitated an intense flow of arguments and expertise; however, in the end, traditional values and differing food identities were more important than so-called rational, scientific arguments.

Second, our case study reflects the new identity of the modern consumer. As Frank Trentman has pointed out, the "emergence of the consumer is the political product of a particular constellation of modernity, resulting in the final analysis from belief about policy and society not from material change or interests as such."[94] The figure

91 Kenneth F. Maxcy, "Trichinosis: An Unsolved Problem in the United States," *American Journal of the Medical Sciences* 194 (1937): 444–48. For data, see Willi Sawitz, "Prevalence of Trichinosis in the United States," *Public Health Reports* 53 (1938): 365–83.

92 Norman R. Stoll, "This Wormy World," *Journal of Parasitology* 85 (1999): 392–96, here 392–93 (reprint from 1947).

93 W.J. Zimmermann, D.V.M. Steele, and I.G. Kagan, "The Changing Status of Trichiniasis in the U.S. Population," *Public Health Reports* 83 (1968): 957–66; Zimmermann, Steele, and Kagan, "Trichiniasis in the U.S. Population, 1966–70: Prevalence, Epidemiologic Factors," *Health Services Reports* 88 (1973): 606–23.

94 Frank Trentmann, "Synapses of Consumer Politics: The Genealogy of the Consumer," manuscript, n.p., 2003, 2.

of the consumer, or rather the idea of "economic citizenship,"[95] was needed because markets malfunctioned. The consumer constituted a conceptual placeholder for political, economic, and scientific interests, wherein either protection or individual freedom were championed. Reflecting on such use of the consumer concept is crucial for any understanding of public debates in modern consumer societies and their ways of handling uncertainty and risk.

Third, the hidden structure of these debates stresses the importance of social Darwinist ideas and notions of decadence during the fin de siècle. Scientific advances made it appear that livestock was increasingly contaminated with bacteria and worms. Not only were these parasites contagious and harmful to people, but they also weakened the whole population. The conflict over meat, the most important food of this time, symbolized and materialized typical fears about racial decline and perpetual struggles in which even countries with a common heritage engaged.

Fourth, this story is one of hubris and national overconfidence. Whereas internal debates were sophisticated, external debates and foreign policy—spurred in the imperialist age by national prestige—argued in stereotyped glorifications of the home perspective and negative prejudices about the Other. On the Western side of the Atlantic, Americans were "prone to consider [their] methods the most practical and best, and to think that in whatever degree those of other nations differ from [American ones] the latter are wrong."[96] On the other side, German perceptions of America changed from a kind of ideal state with free and just institutions to an oligarchy that had become an enemy of European culture dominated by "a handful of ambitious, ruthless and German hostile parvenus."[97] The meat quarrels offer empirical evidence that attests to the development and spread of such one-sided perceptions.

Fifth and finally, our case study also allows for a different narrative—one of convergence rather than opposition. Instead of growing hostility, distrust and aversion, we find rather similar arguments in both countries that offered good options for cooperation and a fair partnership. If this was true for the pre-World-War I era of imperialism and nationalism, then it is likely that we can find post-national identities that will be decisive in a globalized world confronted with more severe problems than transatlantic meat quarrels.

95 Gunnar Trumbull, "National Varieties of Consumerism," *Jahrbuch für Wirtschaftsgeschichte,* no. I (2006): 77–93.

96 Mason, "German-American Trade Misunderstandings," 296.

97 Zimmermann (1901), 216.

Uwe Spiekermann is the Deputy Director of the German Historical Institute and *Privatdozent* at the University of Göttingen. His publications include: *Basis der Konsumgesellschaft: Entstehung und Entwicklung des modernen Kleinhandels in Deutschland, 1850-1914* (Munich, 1999), *Künstliche Kost: Die Genese der modernen Ernährung in der Wissens- und Konsumgesellschaft Deutschlands, 1880-2000* (forthcoming) as well as numerous articles on 19th- and 20th-century economic and social history, the history of consumption, retailing and nutrition, and the history of science.