Serving Clio and Client: The Historian as Expert Witness

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SUMMARY: Although historians often appear in court as expert witnesses, their presence stirs unease and controversy. To clarify the issues at stake, this article compares two activities—testifying on behalf of plaintiffs, and conducting an open-ended historical inquiry—by using the author's personal experience in *Craft v. Vanderbilt* as a case in point. The litigation sought to gain compensation and an apology for the 830–850 women who between 1945 and 1949 at the Vanderbilt prenatal clinic were fed doses of radioactive iron without their consent so as to study the process of iron absorption. The overall conclusion is that historians can serve clients without subverting the canons of the discipline. However, because Clio and client have such different needs, historians should recognize, and take pride in the fact, that courtroom appearances represent advocacy.

KEYWORDS: human experimentation, Cold War radiation research, expert witnesses, informed consent

Historians in the Courtroom

The first but perhaps least appreciated fact about historians as expert witnesses is how often they assume the role. Although colleagues and even litigators presume that historians rarely enter the courtroom, in fact, it has been a common occurrence for some fifty years. Its origins are in the Civil Rights era, specifically with the case of *Brown v. Board of Education* (1954). Historians were not literally in that courtroom; rather, with different degrees of intellectual comfort, they helped draft the briefs presented to the Supreme Court by the lawyers for the NAACP Legal Defense and Educational Fund.[1] In the summer of 1953, such

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1. Richard Kluger, *Simple Justice: The History of "Brown v. Board of Education" and Black America's Struggle for Equality* (New York: Vintage Books, 1975).

notable historians as C. Vann Woodward, John Hope Franklin, and Alfred Kelly applied their knowledge to buttress the argument—crucial to the case—that the principle of "separate but equal" as put forward in *Plessy v. Ferguson* was not a neutral principle, but born of a fundamental hostility to blacks; Jim Crow laws represented efforts to control and humiliate the former slaves.[2] The historians also helped to fashion the argument that the Fourteenth and Fifteenth Amendments provided a constitutional basis for overriding the *Plessy v. Ferguson* precedent and shaking loose from its doctrine.[3]

A tradition born in *Brown* was maintained in a variety of other, very different cases. Historians often testified in litigation involving Indian claims—presenting evidence, on one or the other side, as to whether the plaintiff tribe was, historically speaking, a "real" tribe; the answer had the most tangible implications for buttressing claims to particular lands or establishing native fishing and hunting rights.[4] They have also gone into court to address such questions as whether a particular river was or was not "navigable" in the nineteenth century: by offering testimony on whether a river's boat traffic was steady throughout the year (the river, therefore, to be deemed navigable) or only seasonal (and so not navigable), they helped determine whether that river fell under local or federal jurisdiction.[5] American historians have also testified in foreign courts. Salo Baron testified for the prosecution in the Israeli trial of Adolph Eichmann. The "truth" of the Holocaust took Deborah Lippstadt (in her own defense, to be sure) to England. The role of Maurice Papon in the Vichy government took Robert Paxton to France, where he testified against Papon to rebut the claim that he was merely following German orders.[6]

By far the most controversial case in the 1980s that pitted historian against historian involved charges made by the Equal Employment Opportunity Commission (EEOC) of sexual discrimination against Sears, Roebuck and Company. Rosalind Rosenberg testified on behalf of Sears

2. Ibid., pp. 84, 623–24, 626, 638; Paul Soifer, "The Litigation Historian: Objectivity, Responsibility, and Sources," *Public Historian*, 1983, *5* (2): 47–62, on p. 51.

3. Kluger, *Simple Justice* (n. 1), pp. 291, 626, 635, 637–41, 643, 654, 668; Soifer, "Litigation Historian" (n. 2), pp. 51–53.

4. Heather K. Cyr, "The Battle over History," *Brunswickian*, 4 November 1999, http://www.unb.ca/web/bruns/9900/issue9/new/historybattle.html (22 May 2002).

5. Carl M. Becker, "Professor for the Plaintiff: Classroom to Courtroom," *Public Historian*, 1982, *4* (3): 69–77; Leland R. Johnson, "Public Historian for the Defendant," ibid., 1983, *5* (3): 65–76.

6. Robert O. Paxton, "The Trial of Maurice Papon," *New York Rev. Books*, 16 December 1999, pp. 32–38.

that the absence of women in the highest-paying sectors of its workforce represented not discrimination but an exercise of women's preferences about the kinds of jobs they wanted to do. Alice Kessler-Harris testified for the EEOC that Sears was guilty of discrimination: that it was their hiring and promotion practices, not women's choices, that shaped opportunities within the company hierarchy.[7]

In the 1990s, historians were to be found even more regularly in the courtroom. They appeared on both sides of lawsuits involving tobacco companies, answering questions on what was known at a given point in time about the health dangers of smoking. Kenneth Ludmerer has testified on behalf of Philip Morris.[8] Theodore Marmor, a political scientist with a historical orientation, has also testified for tobacco companies, and so has Stephen Ambrose.[9] On the other hand, Allan Brandt is currently advising the Justice Department in its suits against tobacco companies.[10] Historians have also entered cases brought against companies based on exposure to lead and to silicosis, with David Rosner and Gerald Markowitz allied with plaintiffs.[11]

The catalog of historians in the courtroom can easily be expanded, as my own experiences amply demonstrate. I have served as a historian-expert witness on four occasions. The first case, in the 1970s, focused on the question of whether conditions of solitary confinement as then practiced at the state prison in Walpole, Massachusetts, violated the constitutional standard of "cruel and unusual punishment." On behalf of a public interest law firm interested in prison reform, I toured the facility and then testified about both the standard itself and the conditions at the institution.

My other three cases followed on my joining the faculty at the Columbia College of Physicians and Surgeons, and all have involved the historical development of the concept of informed consent. Thus, I testified for the Mental Health Law Project in its suit against the CIA for having funded, in the 1950s, the research of a Canadian psychiatrist who experimented on his patients with a technique he called "psychic driving." The CIA was interested in the possibility that the method—which forced the

7. Alice Kessler-Harris, "Equal Employment Opportunity Commission v. Sears, Roebuck and Company: A Personal Account," *Rad. Hist. Rev.*, 1986, *35*: 57–79; Rosalind Rosenberg, "Disparity or Discrimination?" interview with David Tell, *Society*, 1987, *24* (6): 4–16; Ruth Milkman, "Women's History and the Sears Case," *Fem. Studies*, 1986, *12* (2): 375–400.

8. Laura Maggi, "Bearing Witness for Tobacco," *Amer. Prospect*, 2000, *11* (10): 23–25.

9. Ibid.

10. Allan Brandt, personal communication.

11. David Rosner, personal communication.

patient to listen to a tape playing meaningless messages repetitively and at high speeds for hours at a time—might become a tool in interrogation. In this period, military and intelligence agencies were caught up in the possibilities of "brainwashing"—both how it might be used by others (notably China) on captured American troops, and how they might use it themselves. The question for the historian in this case was, what standards of informed consent should be applied to research conducted in the 1950s? Should the psychiatrist have obtained consent from his patients before putting them through "psychic driving" (which was the plaintiffs' position), or was that requirement not yet established (the CIA stance)? For reasons to be explored later, I believed that the standard was in place. A bioethicist, Thomas Beauchamp, argued against me that it was not. The case did not go beyond the stage of depositions because the CIA decided to settle rather than litigate.[12]

I also advised one of the attorneys in a case brought by Katie Kelley Moreau. In the 1950s, in an effort to better understand the risks of radiation exposure, organs were removed from bodies that were undergoing autopsy, sent to a Los Alamos laboratory, and never returned. The purpose of the research was to compare radioactive uptake in the organs of those who had died after working and living in the town itself with the organs of those who had worked and lived within the Los Alamos facility.[13] The issue was not whether consent for the removal of the organs had been obtained: all parties agreed that the families had given permission only for autopsy. Rather, was it necessary in the 1950s to have explicit consent for permanently removing an organ? My findings, based on an examination of discussions in pathology journals and texts, was that the need to obtain consent for removal was widely known and recognized. This case, too, was settled before trial, with the plaintiffs winning a $9 million award.

Finally, in the case that I will analyze in depth below, I testified for the plaintiffs in *Craft v. Vanderbilt* on the ethical standards that governed research in the years 1945–60. The experiments in question involved feeding pregnant women radioactive iron in order to study its rate of absorption. The case also posed a second question, which brought in still other historians, including Robert Proctor for the plaintiffs and Susan Lindee for the defendants: what was known at that time about the risks of ingesting radioactive substances?

12. The case was litigated as *Orlikow v. United States*, 682 FS 77 (DDC 1988).

13. Dorothy Melkin and Lori Andrews, "Do the Dead Have Interests," *Amer. J. Law & Med.*, 1998, *24* (2–3): 261–91.

Let one final example demonstrate how often historians serve as expert witnesses, and how legitimate it is for them to do so. The American Historical Association in a brochure and on its Web site describes some possible nonteaching alternatives for historians. The AHA includes "Litigation Support" in its roster, counseling historians about opportunities that may be available for them to serve as expert witnesses.[14] Clearly, testifying is now considered a mainstream activity.

Anxieties and Controversies

This legitimacy acknowledged, it must also be recognized that bringing Clio into the courtroom raises considerable anxiety and controversy as well, with many creditable commentators and participants worried that professional standards for scholarship cannot be fully maintained when serving as an expert witness. C. Vann Woodward was among the first to articulate the position even as he participated in the *Brown v. Board of Education* litigation. "I would stick to what happened and account for it as intelligently as I could," he commented: "You see I don't want to be in a position of delivering a gratuitous history lecture to the Court. And at the same time, I don't want to get out of my role as historian."[15] The litigators were impatient with him. As one of them responded: "We wanted the historians to look at the whole thing from the viewpoint of the blacks and their aspirations, not from some cloud."[16] Alfred Kelly also shared some of Woodward's concerns, but more readily shifted roles from historian to advocate. At first he thought he could serve both masters, the discipline and the litigation—but in short order, he found himself acting more and more as a committed advocate: "I am very much afraid," he later commented, "that . . . I ceased to function as an historian, and instead took up the practice of law without a license."[17] He passed this verdict on himself once he defined his assignment as an effort, not to find "the whole truth," but to convince the court that there was "something of an

14. American Historical Association, "Careers in History: A Miniguide from the American Historical Association," http://www.theaha.org/pubs/careers/Advocate.htm (22 May 2002).

15. Kluger, *Simple Justice* (n. 1), p. 623.

16. Ibid. See also Jack Greenberg, *Crusaders in the Courts* (New York: Basic Books, 1994), p. 188.

17. Alfred H. Kelly, "When the Supreme Court Ordered Desegregation," *U.S. News & World Rep.*, 5 February 1962, pp. 86–88, quotation on p. 88.

historical case" to overturn *Plessy v. Ferguson* and the separate-but-equal doctrine.[18]

More recently, Robert Paxton has expressed some of these same reservations. He had hoped that his testimony on Papon's Vichy role would serve to educate the broader French public about Vichy, but he found instead that "Papon's trial could not teach the clear, simple, and unanimously agreed-upon history lesson that many advocates of the prosecution had hoped for. . . . Some historians doubted that historical scholarship was compatible with the procedures of a trial for crimes against humanity."[19]

If *Brown v. Board of Education* and the Papon trial highlight historians' anxieties, the Sears case illuminates the depths to which controversy can descend. Rosalind Rosenberg was brought into the case by one of the Sears attorneys (her ex-husband, in fact) not because of her special expertise in labor history, but because she taught women's history. The EEOC was making its case on discrimination by an unusual method, relying on the statistical distribution of women in the company workforce, not on firsthand charges of unfairness. The Sears defense was that "mere" numbers did not add up to discrimination: if women were not found in the sectors that were higher paying (such as those that sold appliances), it was because of their own personal preferences. Rosenberg agreed with their contentions, arguing that discrimination was not the key to the outcome, but rather that women had agency and expressed it by preferring some jobs to others.[20]

The EEOC had not initially sought out a historian but, facing the need to rebut Rosenberg, it turned to Alice Kessler-Harris. She insisted that corporations were not nearly as passive in the process of distributing positions as Rosenberg suggested, that the messages they transmitted by dint of their own hiring record not only shaped but also coerced women's choices. Hence, statistical findings on discrimination were accurate and reliable indicators of company policy.[21]

The federal court ruled for Sears. In fact, its decision noted specifically that it found Rosenberg's approach far more compelling than Kessler-Harris's.[22] In short order, a bitter debate broke out about

18. Ibid.

19. Paxton, "Trial" (n. 6), p. 38.

20. Milkman, "Women's History" (n. 7), p. 385; Rosenberg, "Disparity" (n. 7), pp. 5–6.

21. Milkman, "Women's History" (n. 7), p. 387; Kessler-Harris, "Equal Employment Opportunity Commission" (n. 7), pp. 66–72.

22. Milkman, "Women's History" (n. 7), pp. 390–91.

Rosenberg's role in the case, with Kessler-Harris and many other women historians taking a very critical stance. Some of the controversy involved whether Rosenberg, who often cited Kessler-Harris's research in her own depositions, had misused her scholarship. But the nub of the issue, certainly to Kessler-Harris, was political: Why would a feminist historian go to work for Sears, help them in their case, and put back the cause of women's economic advancement? Writing in 1986 in the *Radical History Review,* Kessler-Harris declared: "It did not surprise me that history was brought to trial. . . . But I continue to be disturbed that a feminist historian should fail to see the implications of her testimony for working women and for women's history."[23]

With historians voting, as it were, with their feet and regularly entering the courtroom, it becomes all the more critical to consider the implications of this activity for the standards of the craft. Are those standards inevitably compromised when historians occupy the witness chair? Can you do justice to history even as you try to obtain justice for plaintiff or defendant?

In an effort to answer these questions, I will focus on the case of *Craft v. Vanderbilt,* but in a very special way. In the first instance, I will describe my research and writing activities for the plaintiffs: what I did and did not do in addressing the questions of ethics and the history of human experimentation in my capacity as expert witness. But then, in a second instance, I will describe my research and writing activities in preparation for the Garrison Lecture of 2002: what I did and did not do in addressing these very same questions for another audience. The occasion of the Garrison Lecture serves a test case for me. I return to the same story, but this time so as to enlighten my professional colleagues, not lawyers and judges. The differences between the two performances—and there are differences—are what I wish to emphasize, using them as the springboard for conclusions about serving Clio and serving clients.

Serving the Client

Between 1945 and 1949, some 830–850 pregnant women using the Vanderbilt University prenatal clinic were fed single doses of iron tagged with a radioactive isotope on their second visit to the clinic.[24] The purpose of the feeding was to enable investigators, notably William Darby

23. Kessler-Harris, "Equal Employment Opportunity Commission" (n. 7), p. 75.

24. P. F. Hahn, E. L. Carothers, et al., "Iron Metabolism in Human Pregnancy as Studied with the Radioactive Isotope, Fe^{59}," *Amer. J. Obstet. & Gyn.,* 1951, *61* (3): 477–86.

and Paul Hahn, to learn about iron absorption in pregnant women so as to calculate the amount of iron they needed and to establish the most effective regimen for delivering it. Although there is some dispute about what the investigators actually said to the women, the women themselves remember being told that the dose was a "vitamin cocktail"—and the record supports them. In all events, the Vanderbilt defense was not that Darby and Hahn had obtained informed consent, but rather that the principle itself was not yet embedded in research practice. The plaintiffs, for their part, insisted not only that consent was necessary and appropriate, but that the Vanderbilt team had practiced outright deception.

In 1969 another Vanderbilt team, headed by Ruth Hagstrom, conducted a follow-up study of the health of the women who had participated in the original research. Relying on a detailed questionnaire, the purpose of the study was "to determine morbidity and mortality experiences in the children and mothers fed radioactive iron."[25] The Hagstrom study was stimulated by findings that postnatal exposure to radiation in other instances had caused "an increased incidence of leukemia and other malignancies in both children and adults."[26] Would this also be true for the Vanderbilt women and their children?

None of this background information, however, was shared with the recipients of the questionnaires. They were not told why the study was being conducted. More, they were not told that as participants in the 1945–49 research they had been fed radioactive iron. Instead, they were addressed as those who had earlier joined a "diet and eating habits" study and were then asked about the state of their and their children's health.

The Hagstrom investigation succeeded in reaching some 90 percent of the original cohort. It found that, compared to a control group, the research group demonstrated "a small but significant increase" in cancer rates among their children—namely, 3 cases of cancers linked to radioactive substances among 654 children.[27] The findings were published in the *American Journal of Epidemiology*, but neither the women nor the children were told about them.

The story lay dormant—not hidden, because the articles were in the literature for anyone to read—until the sudden turn of attention to radiation experiments following on the Pulitzer Prize–winning reporting

25. Ruth M. Hagstrom, S. R. Glasser, et al., "Long Term Effects of Radioactive Iron Administered during Human Pregnancy," *Amer. J. Epidemiol.*, 1969, *90* (1): 1–10, quotation on p. 2.

26. Ibid.

27. Ruth Hagstrom, Transcript of 16 February 1997 Deposition, *Craft v. Vanderbilt*, M. D. Tenn. Docket no. 3-94-0090, on pp. 120–22.

of Eileen Welsome, a New Mexico journalist. With Cold War mentalities receding, and under significant public pressure, Hazel O'Leary, secretary of the Department of Energy, ordered the release of heretofore classified materials about radiation experiments, in the process creating a remarkable archive.[28] As a result, litigators learned about the Vanderbilt research, contacted the women involved, and organized a class action law suit: *Emma Craft v. Vanderbilt* (also including as a defendant the Rockefeller Foundation, which had funded the research). The women were seeking monetary damages and an apology.

The law firm that brought the case, Lief, Cabraser, Heimann & Bernstein, based in San Francisco, was not a public interest law firm but a highly successful litigating group which reaped significant profits from the class action suits that it won. One of their attorneys, Donald Arbitblitt, telephoned me and efficiently laid out the reason for his call: Vanderbilt and Rockefeller were claiming that there was no need in the 1945–49 period to obtain informed consent for research. Arbitblitt had already read what I had written about the history of human experimentation, including my *New England Journal of Medicine* analysis of Henry Beecher's 1966 exposé of research protocols of dubious ethicality, and *Strangers at the Bedside*.[29] He was therefore able to phrase his question to me very succinctly: would I be willing to testify that ethical standards in the 1945–49 period were such that defendants violated them by not obtaining consent? I readily accepted—but let me leave the reasons for later discussion.

What did I receive? The boxes that arrived included depositions from Darby, Hagstrom, and others (Hahn had already died), along with reports and depositions from plaintiffs' experts. There were also relevant documents drawn from the Rockefeller Foundation archives, describing research activities proposed and to be conducted, and internal memos from the Vanderbilt investigators and administrators obtained under legal rules governing "discovery" of evidence. If an article or reference struck me as important, the law firm would obtain it for me, readily serving as research assistant. I was to read all this and anything else I believed relevant—billing the firm at the rate of several hundred dollars an hour—and ultimately, to produce a report laying out my position, a

28. Eileen Welsome, *The Plutonium Files: America's Secret Medical Experiments in the Cold War* (New York: Delacorte Press, 1999).

29. David Rothman, "Ethics and Human Experimentation: Henry Beecher Revisited," *N. Engl. J. Med.*, 1987, *317*: 1195–99; Henry Beecher, *Strangers at the Bedside: A History of How Law and Bioethics Transformed Medical Decision Making* (New York: Basic Books, 1991).

rebuttal to their expert's report; to undergo a deposition; and, if needed, to appear as a witness in court.

The question posed was straightforward: what were the ethical standards that researchers in 1945–49 were obliged to respect? Vanderbilt contended that there were no existing state or federal statutes governing the conduct of human experimentation that mandated consent. Moreover, principles of consent at this time were neither taught formally in medical schools nor transmitted informally from physician or investigator to students. Most important, in practice, investigators did not routinely ask subjects for consent to perform research on them, particularly when the subjects were also patients. To substantiate the point, Vanderbilt cited Henry Beecher's 1966 article and *Strangers at the Bedside,* both of which documented instances in which researchers had failed to obtain consent. Finally, Vanderbilt brought in Robert Levine—professor of medicine at Yale, editor of a newsletter, *IRB,* and a frequent writer and commentator on the ethics of research—to support its contentions. Levine corroborated their position, arguing that since the women were patients at the clinic, it was not necessary to obtain their consent.[30]

From my perspective, Vanderbilt had it wrong. It was elevating the practice of some, even many, investigators to constitute a standard for all: because they had not obtained consent, it was, therefore, right not to obtain consent. But the fact that a principle was flouted does not mean that the principle was not operative. Accordingly, I focused my analysis on the normative statements that were relevant to the ethics of research, and presented a very different picture.

In the first instance, I argued that concepts of bodily integrity were relevant to the ethics of experimentation. It was well appreciated long before the 1970s that no one, including researchers, had the right to violate bodily integrity without explicit permission—whether the act was a physical assault, a surgical procedure, an injection, or, as in this case, an iron supplement tagged with a radioactive substance. I referred, as would be expected, to Benjamin Cardozo's classic decision in *Schloendorff v. Society of New York Hospital* (1914): "Every human being of adult years and sound mind has a right to determine what shall be done with his own body; and a surgeon who performs an operation without his patient's consent commits an assault for which he is liable in damages."[31] If this principle governed medical care, surely it governed research; and if it

30. Robert Levine, Transcript of 17 September 1997 Deposition, *Craft v. Vanderbilt* (n. 27), on pp. 258–61.

31. *Schloendorff v. Society of New York Hospital,* 211 NY 125, 105 NE 92, 93 (1914).

were true for 1914, surely it was true for 1945 as well. In this same spirit, I noted that medicine for centuries had reiterated the ideal of "do no harm," an injunction that was certainly no less relevant to research than to therapeutics. The physician's obligation is to promote the well-being of the patient, not to put the patient at risk, even if the precise level of the risk can be debated.

From arguments by extension I moved next to explore the principles that addressed human experimentation directly, uncovering an intricate and detailed record of commentary, almost all of which confirmed the need for consent prior to research. This review of the normative statements occupied center stage in my report. I argued that

> the standards applicable to research in the period 1945–1947 included informing the subjects in an experiment that they were participating in a research protocol, making certain that they understood its components, and obtaining their consent to participate in the research. Although the standards for research with a therapeutic potential were somewhat more ambiguous, there is no doubt that these enumerated standards were clearly applicable to research with no potential therapeutic benefit to the subjects. Feeding radioactive iron to human subjects represents a manifest example of non-therapeutic research, and as such, the investigators were ethically required to inform the subjects of the fact of the experiment, the details of the experiment, the risks of the experiment, and obtain their consent to participate.[32]

In support of these propositions, I invoked texts both well known and more obscure. I quoted Claude Bernard, writing in 1865 in *An Introduction to the Study of Experimental Medicine.* Bernard fully appreciated the importance of clinical research, designating it the third pillar of medical knowledge. Even so, he insisted that investigators were never entitled to sacrifice the interests of the subject for the benefit of others:

> Experiments, then, may be performed on man, but within what limits? It is our duty and our right to perform an experiment on man whenever it can save his life, cure him or gain him some personal benefit. The principle of medical and surgical morality, therefore, consists in never performing on man an experiment which might be harmful to him to any extent, even though the result might be highly advantageous to science, i.e., to the health of others.[33]

I went on to observe that some forty years later, in 1907, these same principles were repeated and expanded by the eminent Johns Hopkins

32. David J. Rothman, Statement of Expert Witness, *Craft v. Vanderbilt* (n. 27), p. 6.

33. Claude Bernard, *An Introduction to the Study of Experimental Medicine,* trans. Henry Greene (New York: MacMillan, 1927), pp. 101–2.

professor of medicine William Osler. He not only condemned harmful nontherapeutic research (as did Bernard), but insisted that the principle of consent of the subject had to govern the research:

> For man absolute safety and full consent are the conditions which make such tests allowable. We have no right to use patients entrusted to our care for the purpose of experimentation unless direct benefit to the individual is likely to follow. Once this limit is transgressed, the sacred cord which binds physician and patient snaps instantly.[34]

In effect, Osler enunciated the principles of consent well in advance of the Nuremberg Code.

The viewpoints expressed by Bernard and Osler, I contended, were shared widely. In 1886, as Susan Lederer's history of early human experimentation explained, a Boston physician, Charles Francis Withington, published an essay entitled *The Relation of Hospitals to Medical Education*, which won Harvard's prestigious Boylston Prize. Withington posed the question of research ethics in terms of the "possible conflict between the interests of medical science and those of the individual patient, and the latter's indefeasible rights," and he came down staunchly on the side of patient rights, even to the point of suggesting, as a remedy, a patients' "Bill of Rights":

> In the older countries of Europe especially, where the life and happiness of the so-called lower classes are perhaps held more cheaply than with us, enthusiastic devotees of science are very apt to encroach upon the rights of the individual patient in a manner which cannot be justified. In this country, we are less likely to fall into this error than those living under monarchical institutions, but even with us it may be well to draw up, as it were, a Bill of Rights which shall secure patients against any injustice from the votaries of science.[35]

Withington insisted that patients had "a right to immunity from experiments merely as such, and outside the therapeutic application. This right is one that is especially liable to violation by enthusiastic investigators."[36] Investigators who wanted to examine the potency of a new drug had to

34. William Osler, "The Evolution of the Idea of Experiment in Medicine," *Trans. Cong. Amer. Physicians & Surg.*, 1907, 7: 1–8, on pp. 7–8.

35. Charles Francis Withington, *The Relation of Hospitals to Medical Education* (Boston: Cupples, Upham, 1886), p. 5. See also Susan E. Lederer, *Subjected to Science: Human Experimentation in America Before the Second World War* (New York: Oxford University Press, 1995).

36. Withington, *Relation of Hospitals* (n. 35), pp. 16–17.

rely upon volunteers, but "they had no right to make any man the unwilling victim of such an experiment."[37] Withington concluded with a sentence that encapsulated the core ethical principle: "The occupants of hospital wards are something more than merely so much clinical material during their lives and so much pathological material after their death."[38]

In light of the Vanderbilt contentions, I demonstrated that these principles were invoked to chastise a particular investigator who violated them. Osler condemned a protocol that involved the purposeful infection of subjects, without obtaining their permission, with what researchers believed to be the bacillus responsible for yellow fever: "To deliberately inject a poison of known high degree of virulency into a human being, unless you obtain that man's sanction, is not ridiculous, it is criminal."[39] In these same terms, Osler, along with many colleagues, condemned the cancer research conducted by two German surgeons who transplanted malignant cells from the diseased breast of a patient to her second, healthy breast in order to study the transmissibility of cancer cells.[40] Commenting on the research, the *Journal of the American Medical Association* endorsed the refusal of a French medical academy to allow a discussion of the medical implications of the findings because they had been obtained in so unethical a fashion. *JAMA* itself hoped that "the storm of indignation which has been aroused, shall deter others who might have in view, in their zeal for science, similar unjustifiable experiments."[41]

The Nuremberg Code, I argued, was not invented out of thin air so as to find a means to punish German doctors. Promulgated in 1947, it emphasized the need for informed consent. As its very first principle put it:

> The voluntary consent of the human subject is absolutely essential. This means the person involved should have legal capacity to give consent . . . and should have sufficient knowledge and comprehension of the elements of the subject matter involved so as to enable him to make an understanding and enlightened decision.[42]

37. Ibid., p. 17.

38. Ibid., p. 15.

39. William Osler, discussion of George M. Sternberg, "The Bacillus Icteroides (Sanarelli) and Bacillus X (Sternberg)," *Trans. Assoc. Amer. Physicians*, 1898, *13:* 71.

40. Cited in Lederer, *Subjected to Science* (n. 35), p. 63.

41. "Grafting Cancer in the Human Subject," *JAMA*, 1891, *17:* 233–34, quotation on p. 234.

42. George J. Annas and Michael A. Grodin, eds., *The Nazi Doctors and the Nuremberg Code* (New York: Oxford University Press, 1992), pp. 102–3.

From my perspective, Nuremberg was invoking an already well-established position, not subjecting German perpetrators to ex post facto judgments.

I went on to insist that not only had the original iron research violated known and recognized standards but so did, in even more egregious fashion, Hagstrom's follow-up study. By 1969, when she published her findings, Beecher's work had already appeared and discussions of consent requirements were frequently found in the literature. Moreover, in 1964 the World Medical Association had promulgated its Declaration of Helsinki, with its unambiguous insistence that subjects must be informed of the aims, methods, benefits, and hazards of the research before they participated. Surely, then, the Hagstrom team had an ethical obligation to inform the subjects why they were being contacted and the nature of the risk to which they had been exposed. Any possible doubt about the importance of fulfilling this duty was erased by the fact that the team had found "a small, but statistically significant increase"[43] in malignancies among the children, an increase that they believed "suggests a cause and effect relationship."[44] Hagstrom insisted that informing the subjects of the results of the follow-up would have needlessly "alarmed" them and "doesn't make sense."[45] But it was the subject's prerogative, not the investigator's, to determine what risk is worth worrying about.

The Vanderbilt lawyers—ever so competent, well versed in the materials, and familiar with all of my relevant writings—were not without countervailing arguments. They asked me who had read Bernard and Osler, and how I could be certain that their views were known and accepted. Again and again they returned to the violations in practice that my own research had uncovered, insisting that practice indicated an absence of principle. My responses emphasized the extraordinary regard in which Bernard and Osler were held, the high degree of consistency among the commentators, and, with all due repetition, that transgressions do not invalidate principles.

There never was the occasion to argue all this out before a jury: Vanderbilt and Rockefeller settled the case with a $10 million pay-out and an apology. When their lawyer began to read the apology to the judge, he was told to turn around, face the plaintiffs, and read it to them.

43. Hagstrom and Glasser et al., "Long Term Effects" (n. 25), p. 1.
44. Hagstrom Deposition (n. 27), p. 121; see also pp. 66, 104, 120–21, 128.
45. Ibid., p. 121.

Serving Clio

Inspired by the invitation to deliver the Garrison Lecture, I returned to the Vanderbilt research—this time not to serve as an expert witness in a case, but to analyze the events as the basis for a lecture to colleagues and for an article to the field. No sooner did I undertake this assignment than I found myself opening wide the door of inquiry, going well beyond what had been my focus for the court case into a series of fascinating issues that I had not explored before. I was now far less concerned with who was right and who was wrong than I was with how did it happen that Vanderbilt undertook this research; what frame of mind, ethics aside, did the investigators bring to the work; how did it relate to other ongoing investigations; why did Rockefeller fund it; and so on. As soon as I was a historian in the archive, not in the courtroom, instinctively and reflexively I broadened the scope of inquiry. I moved, in photographic terms, from a narrow and tight shot to a wide-angle. I had a different lens on my camera, and it brought into focus a whole range of new considerations.

A few examples easily establish the differences. In my historian's role, I had a special interest in the composition of the Vanderbilt subjects. I suspect that many people who had read brief newspaper accounts of the study presumed that since the research was risky and no consent was obtained, the subjects had to be African Americans living in Tennessee. In fact, every one of the subjects was white. Why was this so? The answer turns out to be very simple: Vanderbilt's prenatal clinic was segregated, serving whites only; the blacks went to Meharry. That fact had never come up in my conversations with the plaintiffs or in questioning from the defendants. Apparently, neither side found it a useful piece of information. The defendants were not about to claim that if the research had been truly dangerous it would not have been performed on whites, and the plaintiffs saw no reason to emphasize the whiteness of the class. But every historian, to understate the point, would consider this a useful piece of information, perhaps even the first item on the research agenda. Was Vanderbilt another Tuskegee? Was there a racial component to the research? Was this yet another example of white physicians putting black subjects at risk? That these most elemental historical questions were altogether absent from the court record stands as a perfect example of the difference between the perspective of a case and the perspective of a discipline.

By the same token, the question of why Vanderbilt undertook research into iron absorption was of minor interest to the litigating parties but of central interest to a historical inquiry. In turns out that in a fuller analysis of the incident, the changing grant policies of the Rockefeller

Foundation assume especial importance: in this period, it was altering its philanthropy from endowing a few promising academic institutions to supporting specific studies by investigators wherever they might be found. Vanderbilt was caught in the middle of this change and, in response, began to undertake specific research projects as a source of funding for personnel and facilities. Already in 1945–49, skills at grant-getting had assumed significance. Paul Hahn was appointed to the Vanderbilt department of chemistry but he was a junior in rank, in need of salary support, and obliged to design and carry out research that would attract funding. William Darby was trying to build up a division of nutrition at Vanderbilt and recognized that he would accomplish the task only through outside support. In all, it was apparent by 1946 that "soft money" was essential to university-based research. As one noted Vanderbilt investigator, writing in *Science,* explained: "The universities must be provided with large sums of money for education, research, and training, as free as possible of restrictions. . . . The conduct of research [is] really the highest form of teaching."[46] Hence: "Medical research . . . has a preeminent call upon every social structure for support. . . . Let each social order give the scientist a free hand."[47] Give him the environment and the tools he needs for his research, "and otherwise, for humanity's sake, leave him alone."[48]

But it was not grantsmanship alone that drove the research forward. The field of human nutrition was undergoing major development over these years, partly as a result of the recent discovery of the role of vitamins. As yet, very little was known about their contributions to human health. That vitamin deficiencies had a distinctive role in causing some diseases was appreciated, but the relation of vitamins to general physical and mental well-being was just being explored. The interest was high, and the potential results, important. Indeed, investigators at Vanderbilt and elsewhere were eager to learn more not only about iron uptake in pregnant women but also about the general nutritional states of whites and blacks in Tennessee, hoping that their findings would enable them to raise the levels of health in both groups. However well-intentioned the motives, the plaintiffs in the court case were altogether uninterested in the scientific bases for the research, and the defendants, too, found them irrelevant. To historians, however, they are among the most critical elements in the story.

46. Ernest W. Goodpasture, "Research and Medical Practice," *Science,* 1946, *104:* 473–76, quotation on p. 474.

47. Ibid., p. 475.

48. Ibid.

Perhaps the most astonishing result of casting a wider net of inquiry came where I expected it least: in the history of human experimentation in mental hospitals. Although I certainly knew a good deal about this subject, I was unaware of the history of vitamin research at the Elgin (Illinois) State Hospital. How did I happen upon this material? Again, the wide angle is critical. In order to better understand why Vanderbilt was so interested in vitamin research, I looked into its other sources of funding and came upon the Nutrition Institute, itself supported by a number of major food companies. Reading more about the Institute, I learned of its support of Vanderbilt, but then, to my astonishment, learned also about its support for investigators at the Elgin State Hospital. Once I was put on track, the rest was easy. The annual reports of the hospital itself and the articles that appeared in the medical journals on the results of the research told the story fully—and what a story it was.[49]

I might have anticipated it. After all, the broader my inquiry, the more I learned about other highly invasive research activities with radioactive substances that the Vanderbilt investigators had carried out. In 1943, Paul Hahn reported in the *American Journal of Obstetrics and Gynecology* a study of rates of absorption of radioactive sodium into the vaginas of seven women. The women were not identified, but they were described as having just delivered a baby or undergone surgery, and thus, in the investigator's language, had a "traumatized vagina."[50] The article went on to explain that in order "to prevent leakage, the subjects' hips were slightly elevated and a small cotton tampon inserted just within the vaginal outlet. Blood samples were then taken at frequent intervals from the cubital veins."[51] The result of the research was a better understanding of vaginal absorption and recommendations to be particularly cautious about using toxic ingredients as a douche. But whether the women had volunteered for the study, or even been told that they were in a study, was not mentioned. Invoking one of Henry Beecher's principles, it is most likely that given the discomfort, pain, and danger of the research, the subjects did not knowingly and willingly consent to it.

The research conducted at Elgin, which was still more invasive and would not pass the test of informed consent, represented a collaboration between the Food and Nutrition Board of the National Research Council

49. Charles Glen King, *A Good Idea: The History of the Nutrition Foundation* (New York: Nutrition Foundation, 1976), pp. 223–28.

50. W. T. Pommerenke and P. F. Hahn, "Absorption of Radioactive Sodium Instilled into the Vagina," *Amer. J. Obstet. & Gyn.,* 1943, *46:* 853–55, quotation on p. 855.

51. Ibid., p. 854.

and the Elgin State Hospital. It was also supported by the Milbank Foundation and by the Macy Foundation. The initiative came from Dr. M. K. Horwitt, who was director of the Biochemical Research Laboratory of the hospital, running a small research wing that, in 1942, was eager to study metabolism in schizophrenics.[52] Horwitt, with outside support, was able to take over a one-story building on the hospital grounds and to expand the research agenda to include general vitamin requirements and the effects of vitamin deficiencies—or, as the team put it, "to attempt to create and study pure riboflavin [vitamin] deficiency in controlled circumstances."[53]

One of the first investigations—which was typical, in its method and types of findings, of other Elgin research—was published in 1948 in the *American Journal of Psychiatry*. The researchers selected three groups of twelve men each from the hospital population (the younger men were schizophrenic; the older, demented), and fed them special diets: one was deficient in vitamins B_1 and B_2, one was rich in these vitamins, and one was the normal hospital diet. The men were kept on the diet for two years, enabling the investigators to report that the vitamin-deficient group

> showed a general dulling of affect, loss of interest and ambition, accompanied by a decrease of motor activity. . . . One could see the subjects of the *A* [vitamin-deprived] group sitting quietly on their chairs or lying on their beds while most of the other group were moving around, helping in the ward work, talking to each other or reading. One elderly man who had been known always to be quick, alert, and helpful withdrew from all his activities, isolated himself, and became disinterested in his surroundings.[54]

In light of these findings, the investigators took the *B* group, which had been fed a vitamin-rich diet, and reduced their B_1/B_2 intake even more drastically than that of the *A* group. The results were even more extreme behavioral disorders. One elderly man, heretofore mildly depressed, became more deeply depressed; one mild-mannered man became violent, threatening to break furniture and escape. One of the younger men, who had heretofore easily suppressed bursts of temper, now "went into blind rages"; he became uncontrollable, "threw heavy objects at

52. King, *Good Idea* (n. 49), p. 224.

53. O. W. Hills, E. Libert, et al., "Clinical Aspects of Dietary Depletion of Riboflavin," *Arch. Intern. Med.*, 1951, *87:* 682–93, quotation on p. 682.

54. Oscar Kreisler, Erich Liebert, and M. K. Horwitt, "Psychiatric Observations on Induced Vitamin B Complex Deficiency in Psychotic Patients," *Amer. J. Psychiatry*, 1948, *105:* 107–10, quotation on p. 105.

persons within his reach, screamed at the top of his lungs and cursed female attendants."[55] On the basis of these findings, the team concluded: "Vitamin B complex restrictions caused severe primary mental changes or aggravation of pre-existing psychotic trends among the psychotic subjects."[56]

The researchers continued their projects in order to explore the physical consequences of vitamin deprivation. In 1949, they reported in the *Journal of Nutrition* the case histories of thirteen men who had been on a vitamin B_2-deprived diet over the course of two years: within four months, one subject had lesions and fissures, a second subject had severe scrotal dermatitis, and a third suffered the "most severe" changes, including "raw and weeping" scrotal lesions, extending to the thighs.[57] The team also used the residents of Elgin to investigate niacin and protein deficiencies, in the process discovering cases of liver dysfunction after five months. They were curious as well about the effects of vitamin B_2 deficiency on skin sensitivity to ultraviolet exposure. As they wrote: "The fore-arms of several of the subjects were exposed to infra-red light and although small third-degree burns were inadvertently produced in three subjects, no resultant adjacent dermatitis occurred."[58]

In all, what a chapter this was in the history of mental hospitals and human experimentation—but only in my role as historian did I get to uncover it.

Conclusion

Although the distinctions I am drawing between the role as historian in the courtroom and the role as historian in the archive might seem somewhat artificial—nothing, for example, prevented me from expanding my research in preparing my report to the court, and some litigation might encourage the historian to cast the net of research more widely—in fact, they are not. At a minimum, bifurcating the roles as I do provides two ideal types for analysis and in this way helps clarify the crucial differences between the courtroom and the archive. At best, this division highlights the essential characteristics of each activity. Lawyers and judges,

55. Ibid., p. 107.

56. Ibid., pp. 109–10.

57. M. K. Horwitt, O. W. Hills, et al., "Effects of Dietary Depletion of Riboflavin," *J. Nutr.*, 1949, *39:* 357–73, quotation on p. 368.

58. M. K. Horwitt, C. C. Harvey, et al., "Tryptophan-Niacin Relationships in Man," *J. Nutr.*, 1956, *60* (Suppl. 1): 1–43, quotation on p. 13; see also p. 6.

typically, would find the broader issues irrelevant and inadmissible. Historians would be impatient with so restricted an angle of vision.

What conclusions, then, may be drawn from my two experiences? For one, the integrity and soundness of my testimony remained. The added research that I conducted did not alter any of the findings that I had offered in my reports and depositions in the Vanderbilt case. To focus an inquiry does not distort the results. Expert witnesses are not, perforce, manipulating evidence to serve a client. They dare not contradict their prior positions—if they did, opposing counsel would immediately pounce on them. Indeed, to charge that expert witnesses are too committed to their side of the case to remain objective is far too simplistic. Historians are no more or less "objective" in the courtroom than they are in the lecture hall or in print.

For another, my return to the sources confirmed how very different it was to serve the client than to serve Clio. To enter the courtroom is to do many things, but it is not to do history. The essential attributes that we treasure most about historical inquiry have to be left outside the door. The scope of analysis is narrowed, the imagination is constrained, and the curiosity, curtailed.

Which brings us to the final consideration: why enter the courtroom at all? I think it is for one of two reasons. First, historians may find it important to buttress the operation of the legal system. All defendants and plaintiffs should have access to expert opinion, just as they should have access to counsel. They are entitled to their day in court, and historians, as good citizens, should help them present their most accurate case. In this sense, the historian who testifies for an unpopular client is no different from a lawyer who defends an unpopular client.

Second, historians, like other citizens, may wish to bring their expertise to the support of a cause, to seek to bring justice to a person or to groups that, in their view, have been injured or wronged. In this effort, they serve as advocates and agents of change and their justifications, I believe, should recognize this fact. For myself, serving as expert witness represents a declaration of sympathy for those pressing the case, for the cause they represent, for the equity they wish to achieve, and for the changes they want to protect or realize. Some judges, and perhaps some colleagues as well, may prefer to think of expert witnesses as purely neutral and without personal commitment to the outcome. Such a stance, however, is not only unrealistic but also misguided. Advocacy has its place, and it can be promoted without compromising the craft.