## **RESEARCH PAPER**

# Historians' testimony on 'common knowledge' of the risks of tobacco use: a review and analysis of experts testifying on behalf of cigarette manufacturers in civil litigation

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Received 18 August 2005 Accepted 18 August 2006 A qualitative analysis of the trial and deposition testimony of professional historians who have testified on behalf of the tobacco industry shows that defence historians present a view of past knowledge about tobacco in which the public was frequently warned that cigarettes were both deadly and addictive over the broad historical period. While defence historians testify to conducting significant levels of independent research, they also draw upon a common body of research conducted by industry counsel to support its litigation efforts. Defence historians unduly limit their research materials, ignoring industry records and, therefore, critically undermine their ability to evaluate industry activity in the smoking and health controversy as it unfolded in historical time. A consequence is that defence historians present a skewed history of the cigarette in which the tobacco industry all but ceases to exist.

Expert testimony by professional historians has played a central role in tobacco litigation in the last 20 years as questions of the public's knowledge, understanding, and awareness of the hazards of smoking have become central issues in the tobacco industry's defence in the courtroom. As plaintiffs have brought claims of fraudulent concealment, failure to warn, fraudulent misrepresentation, and other product liability actions against cigarette manufacturers, industry attorneys have turned to professional historians for expert testimony to bolster their legal defence that in the past, the public has known and understood the hazards of smoking, including lung cancer and addiction; that smokers knowingly assumed the risks of cigarette use and, therefore, the industry is not liable for any harm to the smoker caused by cigarette use.

This essay explores the testimony of defence historian experts to understand their methods, analysis, and evidence. Drawing upon formerly privileged litigation documents in tobacco industry files, as well as the deposition and trial testimony of industry historians, and opening and closing statements contained in the Deposition and Trial Testimony Archive (DATTA), I explore how the industry's lawyers came to use historians in the courtroom and how law firms conducted basic historical research. I then present and analyse the principal themes and opinions proffered by defence historians. The result is a disturbing portrait of professional historians deploying skewed and unsound research methods to present an analysis of the past that is perfectly suited to the tobacco industry's legal defence.

## **METHODS**

I identified all deposition and trial testimony transcripts by professional historians serving as "common knowledge", "public awareness", and tobacco history experts extant in the DATTA database between 1 May and 10 August 2004 through the use of keyword searching on the terms "history" and "historian" and related terms. Searches were augmented by browsing through DATTA holdings and consultation with DATTA staff to ensure achieving a 100% sample of the DATTA holdings at that time. The results, indicated in table 1, include 18 experts testifying in 27 trials. The sample

represents most, but not all, of the tobacco trials that employed historians. Furthermore, the testimony of historians of science and medicine testifying on state of the art issues was excluded from this study, as it is analysed by Robert Proctor elsewhere in this volume. Most of the cases— 83%—date from the period 1997 to 2003; two-thirds of the testimony is at trial, while the remainder consists of deposition testimony. Each trial transcript was analysed and inductively coded for the expert's opinion, the expert's methods used to arrive at that opinion, and exhibits and evidence used to demonstrate that opinion. I augmented trial transcript analysis with a snowball search of industry documents (http://www.tobaccodocuments.org) beginning with "Allen Purvis" and "Jan Johnson", two defence attorneys identified frequently in the testimony as providing significant research and logistical assistance to defence experts, and narrowing the search down to the subset of industry litigation documents subpoenaed by the US House of Representatives' Commerce Committee in the 1990s known as the "Bliley Collection". The result was the set of substantial memoranda outlining the use of experts discussed in the next section of this essay.

# THE DOCUMENTS: INDUSTRY ATTORNEYS MOUNT A HISTORICAL RESEARCH PROGRAMME

Formerly privileged industry litigation documents show that the tobacco industry's use of professional historians as expert witnesses has, in fact, a history. The law firms representing tobacco manufacturers understood in the 1980s that the new wave of tobacco litigation then gaining traction would require the industry to move beyond its time-tested defence that cigarettes did not cause disease to include issues revolving around what the industry knew and what the public knew about smoking and disease. In 1984, at the behest of RJ Reynolds counsel Max Crohn, the industry's law firms formed the Special Trial Issues Committee (STIC) to "consider defenses for non-medical issues that might surface in pending tobacco liability litigation". STIC cast a wide net,

**Abbreviations:** AUTS, Adult Use of Tobacco Survey; DATTA, Deposition and Trial Testimony Archive; STIC, Special Trial Issues Committee; TMA, Tobacco Merchants Association

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Name	Testimony type	Case	Year
Ambrose, Stephen	Trial testimony	Covert v. Liggett Group	1994
Ambrose, Stephen	Deposition	FL v. American Tobacco Co.	1997
Berman, Hyman	Deposition	Minn. v. Philip Morris	1997
Berman, Hyman	Trial testimony	Minn. v. Philip Morris	1988
Burns, Augustus	Deposition	Florida v. American Tobacco Co.	1997
Carstensen, Fred	Deposition	Cipollone v. Liggett Group.	1987
Carstensen, Fred	Trial testimony	Cipollone v. Liggett Group.	1988
DiBacco, Thomas	Trial testimony	Eastman v Brown and Williamson	2003
Ford, Lacy	Trial testimony	Jones v. R.J. Reynolds	2000
Ford, Lacy	Trial testimony	Kenyon v. R.J. Řeynolds Tobacco	2001
Ford, Lacy	Trial testimony	Raulerson (Connor) v. R.J. Reynolds	1997
Graham, Otis	Trial testimony	Kotler v. American Tobacco Co.	1990
Graham, Otis	Deposition '	TX v. American Tobacco Co.	1997
Hoff, Joan	Deposition	Dunn (Wiley) v. RJR Nabisco	1997
Hoff, Joan	Trial testimony	Dunn (Wiley) v. RJR Nabisco	1998
Hoff, Joan	Trial testimony	Rogers v. R.J. Reynolds	1996
Hoff, Joan	Deposition '	Tompkin v. American Brands	2001
Hoff, Joan	Trial testimony	Tompkin v. American Brands	2001
Hoff, Joan	Deposition '	Whiteley v. Raybestos-Manhattan	1999
Hoff, Joan	Trial testimony	Whiteley v. Raybestos-Manhattan	2000
Hoffman, Elizabeth	Deposition	Boeken v. Philip Morris	2001
Hoffman, Elizabeth	Trial testimony	Boeken v. Philip Morris	2001
Martin, James	Deposition	Falise v. American Tobacco Co.	2000
Martin, James	Trial testimony	Falise v. American Tobacco Co.	2001
Martin, James	Trial testimony	Local No. 17 Bridge & Iron Workers v. PM	1999
May, Glenn	Trial testimony	Williams v. Philip Morris	1999
Norrell, Robert	Trial testimony	Newcomb v. R.J. Reynolds	1999
Parrish, Michael	Deposition	Henley v. Philip Morris	1998
Parrish, Michael	Trial testimony	Henley v. Philip Morris	1999
Sansing, David	Trial testimony	Boerner v. Brown & Williamson	2003
Schaller, Michael	Trial testimony	Lucier v. Philip Morris	2003
Schaller, Michael	Trial testimony	Reller v. Philip Morris	2003
Sharp, James	Trial testimony	Mehlman v. Philip Morris	2001
Snetsinger, John	Deposition	Bullock v Philip Morris	2002
Tulchin, Joseph	Trial testimony	Widdick (Maddox) v. B&W	1998

seeking experts on the public's awareness of the hazards of smoking, product warnings, public opinion polls, advertising, lobbying, "risk-utility", and "alternate causation". Lawyers from the industry's principal defence firms—Arnold & Porter; Chadbourne & Park; Jones, Day, Reavis & Pogue; Shook, Hardy & Bacon; and Webster & Sheffield—comprised the original STIC committee membership, with additional law firms operating in subsidiary roles.

Industry counsel recruited historians without expertise in the history of science or medicine to testify to the broader history of cigarettes and tobacco in American life. Industry lawyers sought experts who would offer testimony that the American public exhibited high levels of understanding, knowledge or "awareness" of the hazards of smoking and would characterise the tobacco industry as a passive entity that played no role in building and sustaining demand for its product. As a 1992 memo from the law firm King & Spaulding to Brown & Williamson explained:

STIC has developed social, business and medical historians as witnesses to attest to the high level of public awareness regarding tobacco hazards and the absence of any deception by the tobacco industry. These experts will also explain more broadly the evolution of tobacco in America as a result of natural social forces, wholly unrelated to industry coercion or promotion.<sup>4</sup>

To bolster these claims that the public has always known that cigarettes are a health hazard and that the industry played no role in building the demand for its products, defence attorneys undertook their own extensive internal research effort to collect historical materials which were then

supplied to their historians. Industry counsel began with a core collection of historical materials from the files of the Tobacco Merchants Association (TMA) documenting the activities of early 20th century anti-tobacco groups such as the Women's Christian Temperance Union and the Anti-Cigarette League, as well as scientific, religious, and educational materials critical of smoking. Industry counsel provided these materials to their historians, reporting that the documents would "serve as the basis of their opinions".5 However, providing such documents to experts posed the risk of opening up industry attorneys to possible discovery if they were identified as the source of the documents. Therefore, counsel decided in 1985 that all markings identifying materials as belonging to the TMA would be removed when copying the documents. Only then would the doctored documents be passed on to the industry's historians so as to conceal their origin from the court and plaintiff's attorneys and thus shield defence lawyers from any discovery, deposition, or disclosure.6

Memoranda generated by industry counsel indicate that STIC attorneys, particularly Allen Purvis, then of Shook, Hardy & Bacon, and Jan Johnson, then of Arnold & Porter, oversaw extensive reviews of national newspapers, newsweeklies, and periodicals for stories on smoking and health. They also sought negative references to smoking in literature, music, television, and film. Purvis and Johnson also oversaw searches of local newspapers from California, Texas, New Jersey, West Virginia, Massachusetts and Louisiana for press coverage of the smoking and health debate—places where the industry faced active litigation in the mid-1980s. Historians Irwin Unger, James Muldoon, and James Carstensen reviewed the New York Times, 1910–1966. Richard Means and Morton Sosna collected health education

materials. A professor of English, Richard Harp, collected references to the "alleged ill health effects of cigarettes" in literature. Fred Carstensen sought out "derogatory slang terms referring to cigarette smoking" and "negative references to cigarettes" in popular songs. Robert Sobel, author of a standard history of the cigarette, composed research papers on cigarette history. The law firm of Jones Day saw that these historical materials were compiled and coded into a computerised database of "awareness" materials to serve as an ongoing resource for current and future expert witnesses.<sup>7</sup>

As advocates for their clients, tobacco industry lawyers were selective in their research. Empirical results and expert opinions that contravened defence strategies were to be avoided. A survey of the "extensive role of smoking in the movies" was cancelled because of fears that plaintiff's attorneys might "argue that the cigarette companies paid actors to smoke in the movies thereby manipulating the public".8 Defence attorneys decided against using the historian Robert Sobel, the industry's only consulting historian who had published a book on the history of cigarettes. Sobel was, industry attorneys admitted in 1985, "the most prepared witness the [STIC] committee had at this point". Nonetheless, because some of the findings in Sobel's study, "They satisfy: the cigarette in American life", conflicted with defence theories, he was dismissed as a witness.9

Thus, the industry's legal counsel mounted a significant research effort to identify and collect historical materials that would provide a foundation for its witnesses to offer expert opinions in support of the industry position that it was "inconceivable that an individual living and growing up in America at any time since 1900 could have been unaware of the claims that cigarettes were a life-threatening hazard and were habit forming". O Scholars with demonstrated expertise and a record of publication in cigarette history would be passed over for new historians whose testimony would be more favourable to the industry's legal defence.

## THE TESTIMONY: CONDUCTING RESEARCH

The initial cohort of historians active in the STIC efforts of the mid-1980s tended not to testify in court; Fred Carstensen, the defence historian in Cipollone, was the notable exception. Instead, industry counsel recruited a new group of historians. Their testimony, as included in the DATTA database, comprises the basis of the rest of this essay. The analysis of testimony shows that historians testifying on behalf of the tobacco industry have hewed closely to the themes developed by the attorneys active in STIC in 1985–87.

Which historians have testified on behalf of the defence efforts of big tobacco and how are they recruited? The experts employed by the industry counsel as a group have been reputable scholars; some are leaders in their respective subfields. The historians in the study sample include specialists in southern history, business history, women's history, military and diplomatic history, political, and labour history. Attorneys Allen Purvis and Jan Johnson, members of STIC, actively recruited many of these scholars. Stephen Ambrose testified that he was contacted by Purvis and Johnson to testify in the Florida state attorney's general case. Purvis recruited Elizabeth Cobbs Hoffman, Joan Hoff, and Michael Parrish to serve as expert witnesses. Personal contacts and informal networks often were the initial means of contact. Otis Graham, an early consultant for the industry, contacted Michael Parrish before Purvis made his overtures. Michael Schaller, of the University of Arizona, testified that he had been contacted in 1996 by fellow historian Theodore Wilson, "someone I had known professionally for 20 years", about working for the industry's legal counsel. Schaller, in turn, recommended John Snetsinger to Purvis.11

While it is common for historians to employ research assistants, industry lawyers have played a particularly active role in conducting a broad array of research activities on behalf of their expert witnesses. Hyman Berman, testifying in Minnesota v. Philip Morris, explained that he had research assistants "working ... under my direction" in Washington DC. Yet he admitted that the defence attorneys had hired the researchers, and he couldn't even recall their names. The historian in Boerner v. Brown and Williamson drew upon industry lawyers to assist him in his review of local Arkansas newspapers. Elizabeth Cobbs-Hoffman also relied on defence counsel for research assistance. 12 Michael Schaller travelled to Washington to meet with Purvis to inspect the industry's ongoing historical research operation. Schaller testified:

At that point actually one of his things that he [Allen Purvis] wanted me to see was his firm had hired some people to do what they called—I guess their term of art is "spins of newspapers in Library of Congress." In other words, I am trying to take a title "Kansas City Star." What appeared in the Kansas City Star on smoking and health? 1950 to 1990. It's very labor intensive, very technical. And he said, "You know, you probably find it interesting to go see how they do this." I went down to Library Congress about three days sitting with these people. 13

The accumulated research and expertise gathered by industry counsel and its experts are made available to the circle of industry historians. Fred Carstensen testified in Cipollone v. Liggett that when he wanted to learn about slang and literary references on tobacco, he consulted Richard Harp, another industry consultant.14 Joan Hoff received reliance materials from defence attorneys: "I was asking them for Ohio-specific material to flesh out information that would pertain in this particular case with respect to the plaintiff," she testified. 15 Michael Schaller requested and received from the Washington DC law firm of Johnson, Tyler, & Purvis a set of Minneapolis newspapers from the 1950s.<sup>16</sup> The firm maintains a private archive and clearinghouse for historical materials made available to defence experts: "they call it an archive, it's not industry documents or that sort of thing [at Johnson, Tyler & Purvis]," testified Schaller. 17 It's a busy place. Snetsinger testified that while conducting research at Johnson, Tyler & Purvis he met with Elizabeth Cobbs Hoffman, another historian who has testified for the industry.18

Industry attorneys, therefore, have played a significant role in conducting research and gathering historical materials on issues related to the history of the public's knowledge and understanding of the health hazards of smoking. They have provided these materials to their historians to serve as bases for their opinions.

## THE TESTIMONY: COMMON KNOWLEDGE AND AWARENESS

The opinions of defence experts revolve around two closely related concepts: "common knowledge" and "awareness". Both terms are used by defence historians to establish the fact that the public knew and understood that cigarette smoking was a hazard to health and was addictive. An insight into how historian's testimony fits into industry trial strategies is indicated by a proposed jury instruction offered by the defence in Cipollone v. Liggett which stated, in part, that "the law does not require a manufacturer to warn consumers of what they already know". 19

Industry historians define common knowledge broadly on the stand. Some define it as a collective cognitive state of knowing; others define it as a characteristic of the iv110 Kyriakoudes

information itself. Often, experts use both definitions, weaving between the two as its suits their purpose. One historian defines it as "broad scale public awareness about a particular issue or thought or concept".20 Other experts define common knowledge as divorced from individual or collective belief. "Common knowledge is information that has been disseminated to the general public over a long period of time, by a wide variety of sources, or information that comes in the burst of some spectacular publicity" testified David Sansing in Boerner v. Brown and Williamson.21 Hoff testified that it is "simply very, very general, basic ideas about things to do or not to do".22 Another expert characterised common knowledge as both a quality of the information itself and a state of cognition, defining common knowledge as "information which is so routinely discussed and information that is so reinforced by virtually every means of communication so that virtually everybody in this society would have it in her or his head".23 "Common knowledge is information that is commonly aware among the broad public of the United States" noted Robert Norrell.24 Schaller defines it as "information that's been repeated over and over from a variety of sources until it becomes almost part of our consciousness".25

Defence historians reify common knowledge, characterising it as a tangible quantity that is cumulative over time: "it's accumulative; it goes from generation to generation," testified Hoff.<sup>26</sup> "This knowledge is passed down over many generations, in fact, hundreds of years and readily reappears," stated another historian.<sup>27</sup> "Knowledge being cumulative [it] will build up over time and will help to lead to very high levels, ultimately, of general awareness about health risks associated with using tobacco products," noted Kirby Martin.<sup>28</sup> Common knowledge is durable and enduring: it "goes back probably for generations".<sup>29</sup>; "its cumulative and that is that it adds up over time, and that memories don't just vanish from generation to generation".<sup>30</sup>

Defence expert's definition of common knowledge fulfils two purposes for industry counsel as they defend the tobacco industry. Characterising common knowledge as something circulated within families allows defence counsel to use deposition testimony of the plaintiff and his or her family. In Kenyon v. R.J. Reynolds defence counsel argued that the plaintiff knew the risks of smoking by referring to testimony that his pre-teen daughter had asked him to stop smoking in 1968.31 On a broader level, by characterising collective memory and collective knowledge as cumulative, industry experts can pile example upon example of anti-tobacco health information no matter how remote in historical time, arcane, divorced from its context and missing the essential industry disinformation, denials, and advertising to give the jury the impression that the public understood the risks of smoking, even when much of the evidence presented consists of long-forgotten, obscure, incorrect, or poorly circulated information.

The definition of "common knowledge" developed by defence experts is idiosyncratic and not reflected in the scholarly literature. Common knowledge as a concept is widely used in the social sciences and has a well-established, technical meaning. Common knowledge is a state of mutually acknowledged understanding of some fact among some group. A set of individuals must fulfil two conditions to achieve common knowledge. They must all individually know and understand a fact as true, hence "knowledge", and they must know that all the other agents in the set also know the fact, hence "common".32 Common knowledge is a social relationship among a group of individuals; it is a characteristic of mutual knowing and understanding, not a characteristic of the information itself. Therefore, common knowledge cannot be cumulative; it does not gather as rainwater fills a bucket. Moreover, memories do not build up

over generations like some type of residue. The history of the public debate over tobacco's risks to health is a clear illustration of how knowledge in the public sphere is contested, forgotten, revised, and subject to manipulation by powerful agents such as the tobacco industry.

The point in history at which the public knew and understood that cigarettes were deadly differs among experts. Joan Hoff offers the most sweeping view: "the one thing that does stand out about the use of tobacco is, as you look at past time periods, there is very little to compare. It has simply had a universally negative image in the minds of most people since it was first introduced in Europe at the end of the 17th—or the end of the 16th Century."<sup>33</sup> Other experts are more measured. Lacy Ford testifies: "that it has been common knowledge for many decades that cigarette smoking is hazardous to the health, that it can shorten life, that it can cause serious diseases such as lung cancer. And that it is harmful in general as well as in specifics to human health."34 Some experts stress the availability of information. Michael Schaller, in Reller v. Philip Morris, testified that: "my opinion is that the information about the risks of smoking, its addictive potential and the various health risks of cancer and other diseases, was very widely communicated from the late 19th Century on to the American people."35 Fred Carstensen testified in Cipollone v. Liggett: "that there were frequent and persistent statements in her [decedent Rose Cipollone] information environment presented to her from...before the time she chose to begin smoking, right down throughout the period that she continued to smoke...and the use of tobacco was generally associated with a variety of diseases, potentially life-threatening and habit forming."36 Other experts offer oddly precise dates for what is essentially a broad social process. Sansing places the arrival of common knowledge to 1953–54, precisely the time when the tobacco industry began its organised publicity campaign to convince the public that its products were not harmful and that the science implicating cigarettes and disease was flawed and inconclusive.37

The testimony that the public knew and understood the health risks of smoking presents industry counsel with something of a contradiction in the courtroom. If the public knew that smoking was dangerous to health, why did the cigarette manufacturers so adamantly challenge the science implicating smoking and disease? Why do they plead corporate ignorance of the charge that smoking causes lung cancer when this type of hazard was common knowledge, as defined by defence experts? The testimony of the industry's historian experts, interestingly enough, offers a solution. The "common knowledge" of smoking is distinct from scientific knowledge. Glen May testified that science precedes the public's acceptance of medical information. He testified that: "scientific knowledge has a different bar, and it takes a while to convince a scientific community, and then it would pass into common knowledge." Joan Hoff takes a different tack, testifying that common knowledge can lead science: "sometimes common knowledge is ahead of scientific information" and offered the case of chicken soup as an example: "We've thought for a long time that ... chicken soup would help you if you had a cold. I understand now there [are] some scientific studies that say, indeed, there is something in chicken soup that is healthful for you when you have a cold."38 Industry lawyers use such testimony to argue that while the public knew all along that cigarettes were deadly, the industry did not know because the science was ambiguous, unsettled, and uncertain.

## **EXHIBITS AND EVIDENCE**

To arrive at their opinions, defence historians rely on a broad array of historical sources to reconstruct what some have characterised as the "information environment" of the plaintiff.<sup>39</sup> Defence experts testify that they have reviewed local and national news media, including newspapers, magazines, and television and radio news and other mass media for references to tobacco, smoking, and health over the course of the 20th century. Public opinion polls figure prominently in the testimony. Defence experts rely on elements of popular culture such as novels, popular songs, movies, radio, and television programmes. The statements of prominent historical figures, public health officials, and public health organisations also take prominence in the testimony.

More notable are the sources that defence experts ignore, minimise, or dismiss out of hand. First and foremost, defence historians explicitly exclude documents held in online industry archives from the sources they review in their research. To a historian, this is a bizarre omission that would not pass muster in peer-reviewed environments. Immersion in archival sources represents the central feature of the training of professional historians pursuing a PhD. Archival research typically separates serious historical research from the mass of histories written by journalists and other nonscholars. Historians believe that examining these "primary sources" gets one beyond the accumulation of myth, superstition and misinformation to something approaching historical "truth". Turn to the bibliography of any historical monograph and listed first are the archives consulted, reflecting their central role in the study and their paramount importance in historical methodology.

Given the high importance that historians place on archival research, why would defence historians ignore the industry's archives? The decision may be driven by the industry's legal strategy. If defence historians included industry archives in their research, they would open themselves up to cross examination on the full spectrum of incriminating documents illustrating the full spectrum of the tobacco industry's fraud and deceit on smoking and disease. By claiming a methodology that excludes these sources, industry historians can shield themselves from cross examination on the industry's conduct in shaping the public's perceptions of the risks of smoking.

To justify this self-imposed blindness, these historians argue that their research strategy only includes sources made available to the public. These are typical responses given by defence experts while on the stand:

"I was interested in evaluating public awareness, and that involved ... publications that came into the public domain in the time that I was studying it. I was not interested in anything that was merely internal information."

"I was looking at what was available to the public. I was not attempting to make an assessment of what a company might have attempted to do or what they thought they were doing or what they thought their strategic plans were.<sup>41</sup>

"No [internal documents were consulted]. I was interested in what was in the public domain."42

"I'm not being flippant. I think that it speaks for itself that I'm studying public awareness." <sup>43</sup>

"I was interested in evaluating public awareness, and that involved documents in public—in publications that came into the public domain in the time that I was studying it. I was not interested in anything that was merely internal information." 44

By excluding archival documents contained in the files of the tobacco manufacturers, the Tobacco Institute, and the industry's public relations firms such as Hill & Knowlton from their research, defence experts place blinders upon their ability to properly chronicle and evaluate the role of the industry in the smoking and lung cancer controversy. Within the tobacco industry files and the client files of Hill & Knowlton lies the evidence of the industry's public relations campaigns and documentation of successful efforts to suppress and modify information and secretly sponsor disinformation reaching the public on smoking and health. Ignoring these essential archival sources necessarily biases the testimony of defence experts by presenting an account of the smoking and health controversy in which the tobacco industry—the leading historical agent in the controversy—is absent.

Even if one accepts the dubious rationale that only materials before the public merit research, the failure to consult industry document collections deprives defence experts of a critical source for publicly available information not available elsewhere. Industry experts have complained in testimony of the difficulty of obtaining early radio and television material. Hoff, in explaining why she did not research radio programming, testified that "it's next to impossible to obtain information about radio broadcasts until the last 20 years".45 However, the industry online archives hold extensive documentation of radio and television programming and advertising from the 1920s to the 1960s, a fact certainly known to industry lawyers. Transcriptions of broadcast news on the smoking and health issue and of industry-sponsored entertainment programming are extensive in the files of the Tobacco Institute, the various manufacturers, and of the Hill & Knowlton public relations agency. Radio and television news interviews with representatives of public health organisations and the industry are amply documented by the "Radio Reports" transcription service, hired by Hill & Knowlton to monitor the information presented to the public on the smoking and health issue.46 Industry files contain broadcast transcripts of advertising on tobacco industry-sponsored programmes such as "The Grand Ole Opry", "Your Lucky Strike Hit Parade", Art Linkletter's "People are Funny", and "The Beverly Hillbillies".47

The industry archives ignored by defence historians also contain extensive polling, survey, and marketing data. The cigarette manufacturers were deeply interested in the public's beliefs about cigarettes and health, and they commissioned numerous surveys to ascertain those beliefs. Defence experts make use of surveys such as the Gallup Poll, yet by avoiding industry documents they ignore important survey research that is in many ways focused more upon the issues of awareness of the risk of smoking than publicly available polling research.<sup>48</sup>

While defence historians avoid industry archives, they show no hesitation in conducting archival research at repositories where they are likely to find anti-tobacco materials that will support their common knowledge opinion. Defence historians have conducted archival research at Loma Linda University, long a centre of anti-tobacco activity. 49 Copies of the papers of Alton Blakeslee, an Associated Press reporter who covered the smoking and health beat, and the papers of Alton Ochsner, a pioneering New Orleans chest surgeon and anti-tobacco advocate, circulate among defence experts. Michael Parrish testified that he received copies of selections from Blakeslee's papers from Theodore Wilson, another industry expert. A set of documents from Ochsner's papers came from Stephen Ambrose's daughter, who conducted research for her father while he was employed as a defence expert.<sup>50</sup> Glenn May conducted extensive research at a collection of Women's Christian Temperance Union papers at the Oregon Historical Society even as he avoided industry archives.51

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Defence experts tend to minimise advertising in their analysis, dismissing it as either irrelevant, insignificant, or ineffectual. Elizabeth Cobbs Hoffman testified that while she encountered cigarette advertising in her research, she discounted it, because she "did not feel that it really was important" for understanding the question "what did people know about the health risks and when did they know them?". Hoffman testified that she limited herself to only viewing materials that stressed the dangers of smoking: "what I looked at primarily is the information that people were getting that would tell them this is a bad thing for vou."52 Joan Hoff, on the other hand, gives more weight to advertising, noting that it is a "component ... of how we think about products" and includes advertising as a "part of common knowledge".53 Another defence historian declared: "I did not detect any impact on levels of public awareness from advertising."54 Glenn May testified that advertising played no role in building the demand for cigarettes because it "doesn't come up until the second decade of the 20th century". 55 Apparently, May was unaware of both the tobacco industry's pioneering role in the development of modern advertising in the late 19th century and the basic history of cigarette consumption. The 1910s, in fact, saw the highest annualised percentage increases in cigarette smoking of any decade in the 20th century.56 Since defence historians exclude industry sources from their research, they cannot adequately evaluate the role of the industry in influencing the information reaching the public and public opinion itself. For example, defence experts may not know that cigarette manufacturers sponsored 45% of all programmes broadcast on television in the early 1960s.57

Popular culture materials figure prominently in the testimony of defence historians. For example, nearly every industry expert in the study drew upon short, edited selections from movies to illustrate historical awareness that smoking was harmful, particularly by highlighting the use of slang. Short clips demonstrating the use of the term "coffin nail" in films such as From Here to Eternity (1953) and Thirty Seconds Over Tokyo (1944) or the use of the term "nicotine addict" in The Saboteur (1942) are shown to juries and represented as communicating to the public "the addictive qualities...[and] the deadly impact of smoking".58 Some experts acknowledge that films have "glamorize[d] smoking" but go on to minimise the effect, arguing that "on the other hand, they also incorporated the negative, the very negative images about smoking and health and death".59 Such brief clips focusing on isolated and humorous uses of cigarette slang do not convey the true context of smoking in cinema. What kind of message about smoking is expressed in scenes not shown the jury as in Thirty Seconds Over Tokyo where injured American airmen recover by joyfully smoking cigarettes in their hospital beds?

Educational materials are used by defence experts to illustrate how children learned of the risks of smoking in school. Experts discuss the implementation of mandatory alcohol, narcotics, and tobacco education, and often present selections from health textbooks.60 Defence experts, however, gloss over how health education in the public schools during the period 1920 to 1960 minimised or ignored the risks of cigarette smoking. Carstensen testified that the National Education Association made smoking and health education "essential concerns in the early 1930s".61 Closer examination of the evidence shows otherwise. As late as the early 1950s, the National Education Association and American Medical Association's "Joint Committee on Health Problems in Education" offered only the weakest guidelines on tobacco education, making no mention of cancer, and further advising the health instructor that "it is a disservice to exaggerate the harmful effects of tobacco because the visible

evidence belies the charge. The child sees adults smoke—including doctors—with evident enjoyment." Howard S Diehl's *Textbook of Healthful Living*, widely used in schools in the 1940s and 1950s, and beyond, presented a decidedly ambiguous treatment of effect of tobacco use on health, concluding: "In spite of all the careful studies and observations of the effects of tobacco upon man and animals we are still unable to give a final answer to the ultimate effects of moderate smoking upon health." Significantly, Diehl makes no mention of lung cancer whatsoever.

The existence of anti-smoking groups over the course of the late 19th and 20th century is offered as evidence to support defence historians' opinion that it was "common knowledge" that cigarettes were deadly and addictive. Experts offer a discussion of anti-smoking advocates, organisations and policies of the early 20th century such as Lucy Page Gaston, the Anti-Cigarette League, and the spate of cigarette prohibition laws that existed before and immediately after the first world war as indicators of a long seated hostility to the cigarette in American life. Yet, they fail to explain the repeal of anti-cigarette laws and the tobacco industry's successful marketing effort to build smoking as a socially normalised activity—what historian Allan Brandt has termed "the engineering of consumer confidence". 64 Experts cite the anti-smoking efforts of medical pioneers such as New Orleans chest surgeon Alton Ochsner, the public education efforts of the American Cancer Society, and a statement by the American Medical Association executive vice-president, FJL Blassingame, that warning labels were unnecessary as the hazards of smoking were "common knowledge". Adverse statements are ignored, such as when Ochsner noted that industry advertising and denials of the link between smoking and cancer cause "a good many people [to be] deluded into smoking". Again, since defence historians ignore the records of the tobacco industry, they cannot see the evidence that points to the culpability of the industry in stunting and obscuring the public's knowledge of the hazards of smoking.65

Defence experts spend a good deal of time on the stand discussing the news coverage of the smoking and health controversy during the period, 1950-1964. They present a story of an avalanche of information warning the public not to smoke, beginning with the press coverage of the Graham-Wynder studies, continuing with the Hammond-Horn/ American Cancer Society study, and culminating in the publication of the Surgeon General's 1964 Report on Smoking and Health. Defence attorneys in their own internal documents referred to these as "deluge" materials.66 Stephen Ambrose testified to finding 900 articles on smoking and health over the course of the 20th century in his newspaper research.<sup>67</sup> Characterising the media coverage, Fred Carstensen concluded that "the articles about the health consequences [of] using tobacco were numerous, they were repeated in the environment throughout this period. They were certainly there and available."68 Some experts have acknowledged that the media coverage of smoking and health issues was framed as a debate. Hyman Berman noted that "quite a few [magazine and newspaper stories] questioned the linkage between smoking and health. So there was still a debate going on at that time."69 Ambrose characterised the coverage of lung cancer as inconclusive: "the link is stressed, the possibility," and that coverage in the 1950s pointed to the need for more research."70

The failure to consult media transcripts in the files of the tobacco manufacturers cause defence experts to misrepresent the historical context of the federal government's role in the smoking and health debate. For example, defence experts make much of Surgeon General Leroy Burney's unwillingness to support mandatory health warnings on cigarettes,

relying on his 1957 testimony before Congress: "Our position is that we have informed the public through the excellent coverage of the press, radio, and TV."71 Burney's statement is presented as evidence that the US Public Health Service and, indeed, the federal government endorsed the view that the public understood the health dangers of smoking. This is incorrect. We can see the cautious, almost tentative nature of Burney's public statements by looking at the media transcripts in the files of the cigarette manufacturers. It is clear that to Burney informing the public stopped far short of leading an educational campaign persuading the public not to smoke. When asked in a 1957 television interview what was being done by the states, Burney responded: "Frankly, I don't know what each state is doing. Some of them, of course, are a little more interested [in smoking and health education] than others." Burney's own statements on the link between smoking and disease were also highly qualified. In another interview he stated that "there is increasing and consistent evidence to indicate some relationship between excessive and prolonged cigarette smoking and lung cancer, ... it is one of the causative factors, but recognizing that air pollution and perhaps other factors may enter into it." When asked if people should stop smoking, Burney replied, "No, sir, I do not believe they should quit smoking". Burney defined "excessive and prolonged" as "at least two packs a day, or more, and over a period of 20 to 30 years", concluding, "Now that's a long while".72 Burney's statements did grow stronger and more direct over time, and he did advocate quitting smoking in the Surgeon General's 1959 statement on smoking and disease in the Journal of the American Medical Association. Burney's tentative statements make more sense when one understands that he never envisioned the Public Health Service's role as undertaking a broad, public antismoking campaign, particularly one that would have taken on the powerful tobacco industry.73

The "deluge" of print media coverage of smoking and health fails to support the common knowledge opinions of defence experts when the news stories are subjected to close scrutiny. The media coverage of smoking and health presented conflicting information that led to high levels of confusion among the public, particularly in the 1950s. For example, in 1954 The Reader's Digest reported that "medically speaking, tobacco is not habit-forming". Smoking is merely "habit-forming in the same way that three meals a day or eight hours sleep or wearing clothes are habit-forming". Cessation of use merely makes the user "uncomfortable".74 Other news stories flatly denied the connection between cigarettes and cancer, as in a 1955 Newsweek story that stated "no link between cigarette smoking and lung cancer has been found" in a two-year-long British study. The story goes on to list "ways to fend off cancer". No mention of foreswearing cigarette smoking or tobacco use is mentioned.75 Industry denials and obfuscations were standard elements in smoking

Defence historians ignore or minimise the tobacco industry's role in perpetuating the debate over the role of smoking in causing lung cancer. They claim that the industry's voice in the news media was weak and inconsequential. Ambrose claimed that only 10% of the news stories he examined on smoking and lung cancer contained a Tobacco Industry Research Committee statement calling for more research. Hoffman comes up with a figure of 5%. Hoffman is similarly dismissive of the industry sponsored "Frank Statement" that appeared in 448 newspapers on 4 January 1954, while failing to explain how the "Frank Statement" framed the industry's response to smoking and health for years to come. To Other experts acknowledge the prevalence of industry statements in the news media, but discount such statements by claiming that only the headlines matter.

Experts rely heavily upon polling data, even as most admit they do not have the expertise to adequately evaluate such data.79 This lack of expertise is clearly demonstrated when witnesses reference a "poll" conducted by the editors of Senior Scholastic Magazine in 1959 and 1960. Parrish, Norrell, and Ford all rely heavily upon what, in fact, was not a scientific poll at all, but merely a mail-in survey included in a magazine distributed in the schools. Such surveys are what pollsters call "SLOPS" (self selected opinion polls), and have no value in the scientific measurement of opinion.80 Defence experts reveal their unfamiliarity with even the most elementary aspects of proper random sampling procedures. Parrish, when asked if the Senior Scholastic mail-in survey followed proper random sampling techniques, replied: "I think it was done according to what would have been the accepted methodology of the...of the time."81 Similarly, Norrell refers to a "larger survey" of 11 000 respondents, implying erroneously that increasing a sample size in a non-random, self-selected sample yields greater statistical validity.82

Defence experts conflate the high level of public awareness of the debate over cigarettes and disease with public acceptance, knowledge, and understanding of the proposition that cigarettes are the primary cause of lung cancer. Industry historians most often cite a 1954 Gallup poll in which some 90% of those polled responded affirmatively to the question: "Have you heard or read anything recently that cigarette smoking may be a cause of cancer of the lung?" For example, Ford used the response to this question to illustrate "what I call awareness or public knowledge" that smoking caused lung cancer.83 No such conclusion can be drawn from this poll, which simply asked respondents about their awareness of the debate, and not about their knowledge/belief of opinions as to whether or not smoking caused cancer. Polling organisations have publicly objected to this misuse and misrepresentation of their data in the courtroom. The Gallup Organization characterised Ford's use of polls as "misleading", further pointing out that the "full range of measures" in the 1954 poll show a "high degree of doubt and confusion about the dangers of smoking".8

By ignoring or minimising the results of the Adult Use of Tobacco Survey (AUTS) and other authoritative surveys of tobacco use, many of them sponsored by the industry itself, industry experts can ignore countervailing evidence. In 1966. the AUTS found that when smokers were asked if cigarettes caused lung cancer, 45% responded either "definitely not", "probably not" or "don't know". Sixty per cent of women and 63% of men strongly or mildly agreed with the statement: "the connection between smoking and disease is not yet proved because it is only based on statistics," indicating a high level of acceptance in one of the tobacco industry's chief criticisms of the research on smoking and health. Two-thirds of female and 55% of male smokers agreed with the statement: "Before people will be convinced that cigarette smoking is harmful to health, the tobacco industry itself has to say that smoking is harmful to health," suggesting that the smoking public looked to the tobacco industry for information and guidance on smoking and health issues.85 A 1980 survey found that 49% of smokers—or about 25 million people—were unaware that "smoking causes most cases of lung cancer".86 Public knowledge did increase in the late 1970s and 1980s. By 1985, some 85% of smokers indicated a belief that smoking was a cause of lung cancer. Nonetheless, the 1989 Surgeon General's report shows clearly that large portions of the smoking public either underestimated or were simply unaware of the health hazards of smoking.87 The evidence points towards high levels of doubt, confusion, and ignorance on the issue of smoking and disease in a significant portion of the smoking public well into the 1980s.

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## What this paper adds

Expert testimony by professional historians has played a central role in tobacco litigation in the last 20 years as questions of the public's knowledge, understanding, and awareness of the hazards of smoking have become central issues in the tobacco industry's defence in the courtroom. This is the first study to systematically examine that testimony. Its chief findings are that significant portions of the research relied upon by defence historians have been conducted by industry law firms and that the testimony presents a skewed and deceptive history of cigarettes and tobacco in American life

Similarly, the substantial body of industry-sponsored survey research—also ignored by industry historians—supports the position that there were significant levels of confusion over the risks of cigarettes among the smoking public. No historical actor had greater financial incentive to gather accurate data on the public's attitudes on cigarettes, smoking preferences and practices, and health. The industry employed leading polling organisations such as Gallup and Roper to conduct focused, high-quality public opinion research on these issues. The surveys are revealing. A 1959 industry-sponsored Roper poll asked respondents to choose from a list of activities those that were "most dangerous to life". Only 11% of respondents chose "smoking a pack or more cigarettes a day", while 15% chose drinking two alcoholic drinks per day.88 A similar industry poll indicates a lack of knowledge about the addictive qualities of smoking. When RJ Reynolds asked smokers in 1982 whether smoking was a "habit" or an "addiction", respondents chose "habit" by a margin of two to one (52% to 25%).85

## CONCLUSION

The tobacco industry has had no problem availing itself of a wide range of scientific, scholarly, and professional expertise in its legal defence. While historians have been called to serve as experts in the courtroom in litigation involving voting rights, environmental and public health issues, employment discrimination, and Indian rights, their role in tobacco litigation has gone largely unnoticed.90 Historians who have testified on behalf of the tobacco industry present a view of the past in which the public understood that cigarettes were both deadly and addictive over the broad period of historical time. It's a misleading story that lacks the complexity, ambiguity, and context of peer-reviewed historical research. While defence historians testify to conducting significant levels of their own research, they also draw upon a common body of research conducted by industry counsel in support of its litigation efforts. Crippling flaws in industry historians' research methodology impair the credibility of their findings. Tobacco industry historians unduly limit their research materials, ignoring industry archives and, therefore, critically undermining their ability to evaluate public knowledge and industry activity in the smoking and health controversy as it unfolded in historical time. On this point alone, their research fails to meet basic professional standards of scholarship. As a consequence of this flawed methodology, defence historians present a history of the cigarette in which the tobacco industry all but ceases to exist as an agent in the history of the rise of the cigarette in American life. The effect is to present a skewed and profoundly ahistorical view of the cigarette divorced from all historical context where scholarship and evidence adverse to the industry's legal theories are ignored. From the testimony of industry historians, one

would never understand how it came to be that anyone ever smoked.

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#### REFERENCES

- 1 King & Spaulding Law Firm. Special Trial Issues Committee ("STIC"). April 7, 1992. Bates No. 689103258-689103437. http://tobaccodocuments.org/bliley\_bw/689103258-3437.html Tab 1, page 2.
- 2 King & Spaulding Law Firm. Special Trial Issues Committee ("STIC"). Tab 1, page 2.
- 3 King & Spaulding Law Firm. Special Trial Issues Committee ("STIC"). Tab 2, page 1.
- 4 King & Spaulding Law firm. Special Trial Issues Committee ("STIC"). Tab 1, page 4.
- 5 King & Spaulding Law firm. Special Trial Issues Committee ("STIC"). Tab 4, page 3.
- 6 Purvis A. Shook, Hardy & Bacon Law Firm. Report Containing Analyses and Mental Impressions Concerning Activities on Behalf of the Legal Department Prepared by RJR Outside Legal Counsel. June 25, 1985. Bates No. 515781759-515781792. Page 4.
- 7 King & Spaulding Law Firm. Special Trial Issues Committee ("STIC"). Tab 4, pages 4–12; Jones Day Law Firm. Manual for Historical Awareness Coding Project. 1986. Bates No. 515873086-515873207. http://tobaccodocuments.org/bliley\_rjr/515873086-3207.html.
- 8 King, Spaulding Law Firm Special Trial Issues Committee ("STIC"). Tab 4, page 16.
- Patterson AM. Riker, Danzig, Scherer & Hyland Law Firm. Letter to Sharon D. Johe, R.J. Reynolds Tobacco Co. forwarding Shook Hardy & Bacon Memorandum "STIC File". June 25 1985. Page 8. http://tobaccodocuments.org/bliley\_rjr/515781759-1792.html.
   King & Spaulding Law Firm. Special Trial Issues Committee ("STIC"). Tab 4,
- 10 King & Spaulding Law Firm. Special Trial Issues Committee ("STIC"). Tab 4 part II, page 1.
- 11 Ambrose SE. Department of History, University of New Orleans. Deposition. State of Florida, et. al. v. The American Tobacco Company, et. al., May 30, 1997. Case no. 95-1466AH. Circuit Court, Fifteenth Judicial Circuit, Palm Beach County, Florida. Pages 8-9 http://tobaccodocuments.org/datta/AMBROSES053097.html; Hoffman, E. Department of History, San Diego State University. Deposition. Boeken v. Philip Morris, Inc. February 28, 2001. Case No. BC226593. Superior Court, Los Angeles County, California. Pages 9-10. http://tobaccodocuments.org/datta/HOFFMANE022801.html; Parrish M. Department of History, University of California, San Diego. Deposition. Henley v. Philip Morris, Inc. December 29, 1998. Case No. 995172. Superior Court, San Francisco County, California, Pages 7-8. http://tobaccodocuments.org/datta/PARRISHM122998.html; Schaller, M Department of History, University of Arizona. Deposition. Reller v. Philip Morris, Inc. April 23, 2003. Case No. BC261796. Superior Court, Los Angeles County, California Polytechnic State University. Deposition, Bullock v. Philip Morris, Inc. April 23, 2002. Case No. BC 249171. Superior Court, Los Angeles County, CA. Pages 6-8. http://tobaccodocuments.org/datta/SNETSINGERJ042302.html.
- 12 Berman H. Department of History, University of Minnesota. Trial Testimony. State of Minnesota v. Philip Morris, Inc. et. al. March 26, 1998. File No. C1-94-8565. Second Judicial District, Ramsey County, Minn. Pages 9414-15 http://tobaccodocuments.org/datta/BERMANH032698.html; Sansing D. Department of History University of Mississippi. Trial Testimony. Boerner v. Brown & Williamson. Case No. 4: 98CV00427JMM, May 16, 2002. United States District Court Eastern District of Arkansas Western Division. Page 1688. http://tobaccodocuments.org/datta/SANSINGD051603.html; Hoffman E Department of History, San Diego State University. Trial Testimony. Boeken v. Philip Morris, Inc [p. m]. April 26, 2001. Case No. BC226593. Superior Court, Los Angeles County, California. Page 3908. http://tobaccodocuments.org/datta/HOFFMANE042601PM.html.
- 13 **Schaller M**. Deposition. Reller v. Philip Morris, Inc., April 23, 2003:100.
- 14 Carstensen F. Department of Economics University of Connecticut. Trial Testimony, Cipollone v. Liggett Group Inc. April 12, 1988, [a.m.]. Civl Action No. 83-2864SA. United States District Court for the District of New Jersey.

- Page 7699. http://tobaccodocuments.org/datta/CARSTENSENF041288AM.html.
- 15 Hoff J. Contemporary History Institute Ohio University. Deposition. Tomkin v. American Tobacco. Cause No. 5: 94-CV-1302, June 29, 2001. United States District Court For The Northern District of Ohio Eastern Division. Page 7. http://tobaccodocuments.org/datta/HOFFJ062901.html
- 16 Schaller. Deposition. Reller v. Philip Morris. April 23, 2003:128
- 17 Schaller M. Department of History, University of Arizona. Trial Testimony. Reller v. Philip Morris, Inc. Case No. BC261796 July 10, 2003. Superior Court, Los Angeles County. Page 8768. http://tobaccodocuments.org/datta/ SCHALLERM071003AM.html.
- Snetsinger. Deposition. Bullock v. Philip Morris, Inc. April 23, 2002:6–8.

  Defendant's Proposed Jury Instructions. Cipollone v. Liggett Group Inc. n.d.
- Bates No. 85862829-2941:38.
- 20 Martin JK. Department of History University of Houston. Trial Testimony. Falise v. American Tobacco Co. Case No. 99-CV-7392. January 3, 2001 United States District Court Eastern District Of New York. Page 4235. http:// tobaccodocuments.org/datta/MARTINJ010301.html
- Sansing. Trial Testimony. Boerner v. Brown & Williamson. May 16, 2002:1680.
- 22 Hoff J. Institute for Contemporary History Ohio University. Trial Testimony.
   Dunn and Wiley v. RJR Nabisco Holdings Corporations. Case No.18D01-9305-CT-06. March 13, 1998. Indiana Delaware County Superior Court. Page 8642. http://tobaccodocuments.org/datta/HOFFJ031398.html
- 23 May G. Trial Testimony. Williams v. Phillip Morris Inc. Case No. A9705-03957. March 12, 1999. Circuit Court Multinomah County, Oregon. Page 49. http://tobaccodocuments.org/datta/MAYG031299AM.html.
- 24 Norrell R. Department of History University of Tennessee. Trial Testimony. Newcomb V. R.J. Reynolds. Case No. 88913-8 T.D. March 18, 1999. Circuit Court of Shelby County, Tennessee for the Thirtieth Judicial District at Memphis. Pages 5469-71. http://tobaccodocuments.org/datta/ NORRELLR031899PM.html
- 25 Schaller. Trial Testimony. Reller v. Philip Morris. Inc., July 10, 2003:8782. 26 Hoff J. Institute for Contemporary History Ohio University. Trial Testimony. Tomkin v. American Tobacco Co. Cause No. 5: 94-CV-1302, United States District Court For The Northern District of Ohio Eastern Division. September

27, 2001: 673-674. http://tobaccodocuments.org/datta/ HOFFJ092701.html.

- 27 Ford LK. Trial Testimony. Kenyon v R.J. Reynolds Tobacco Co. Case No. 00-5401. Circuit Court Of The Thirteenth Judicial Circuit Hillsborough County, Florida. December 5, 2001: 2954, http://tobaccodocuments.org/datta/ FORDL120501.html
- 28 Martin JK. Trial Testimony, Falise v. American Tobacco Co., January 3, 2001-4243
- Sharp JR. Trial Testimony. Mehlman v. Philip Morris Inc. Docket No. L-1141-99 May 3, 2001. Superior Court of New Jersey Middlesex County. Page 3493. http://tobaccodocuments.org/datta/SHARPJ050301.html.
- Martin. Trial Testimony. Falise v. American Tobacco Co., January 3, 2001:4235-36.
- Parker SE. Jones Day Law Firm. Defendant Closing Statement. Kenyon v. R.J. Reynolds Tobacco Co. Case No. 00-5401. Florida: Circuit Court of The Thirteenth Judicial Circuit Hillsborough County, December 10, 2001, 3659-60. http://tobaccodocuments.org/datta/DCSKENYON121001AM.html.
- Vanderschraaf P. Common Knowledge The Stanford Encyclopedia of Philosophy. In: Edward N. Zalta, eds. Summer 2002 Edn. http://plato.stanford.edu/archives/sum2002/entries/common-knowledge (accessed June 10, 2005; Heal J. Common Knowledge. The Philosophical Quarterly 28. April, 1978: 116-131; Milgrom P, An Axiomatic Characterization of Common Knowledge. Econometrica January 1981;**49**:219–22.
- 33 Hoff. Trial Testimony. Dunn and Wiley v. RJR Nabisco Holdings Corporations,
- March 13, 1998:8599–8600.

  34 Ford. Trial Testimony. Kenyon v R.J. Reynolds Tobacco Co. December 5, 2001:2941-42.
- Schaller, Trial Testimony. Reller v. Philip Morris. Inc., July 10, 2003:8772 Carstensen. Trial Testimony, Cipollone v. Liggett Group Inc. [a.m.]. April 12, 1988:7659
- 37 Sansing. Trial Testimony. Boerner v. Brown & Williamson, May 16, 2002:1690-92.
- Hoff. Trial Testimony. Dunn and Wiley v. RJR Nabisco Holdings Corporations. 38 March 13, 1998:8602.
- Carstensen. Trial Testimony, Cipollone v. Liggett Group Inc. [a.m.]., April 12, 1988:7659
- Ford. Trial Testimony. Kenyon v R.J. Reynolds Tobacco Co., December 5, 2001:2938-39
- Carstensen. Trial Testimony, Cipollone v. Liggett Group Inc. [a.m.]., April 12, 1988:7566
- 42 Sharp. Trial Testimony. Mehlman v. Philip Morris Inc. May 3, 2001: 3644.
   43 Ambrose. Deposition, Florida v. American Tobacco Co., May 30, 1997:18.
   44 Ford. Trial Testimony. Kenyon v R.J. Reynolds Tobacco Co., December 5, 2001:2938-39
- 45 Hoff J. Institute for Contemporary History Ohio University. Trial Testimony Whiteley v. Raybestos-Manhattan. Case No. 303184 February 23, 2000. Superior Court of The State of California, County of San Francisco. Pages 4041-52. http://tobaccodocuments.org/datta/HOFFJ022300.html, 4041-
- 46 See, for example, Radio Reports, 1957-59. Bates No. TIMN0110050-0110105.
- Kyriakoudes LM. The Grand Ole Opry and Big Tobacco: Radio Transcripts from the Files of the R. J. Reynolds Tobacco Company, 1948 to 1959. Southern Cultures 12: 2, 2006. Pages 78–91; William Esty Company,

- Television. December 26, 1957. Bates No. 500411082-500411087. http://legacy.library.ucsf.edu/fid/xcs79d00; Barton Batten, Durstine & Osborne, Inc. Radio Continuity, Lucky Strike, the American Way, July-Dec. 1953. (1953), Bates No. ATX01 0023543-ATX01 0024081, http:// legacy, library, ucst, edu/tid/tjtd80a00; William Esty Company, [Broadcast Transcripts] Television Copy ["Beverly Hillbillies", "Garry Moore Show", 'Tell the Truth"]. (August-December 1963), Bates No. 500412526-500412605, http://legacy.library.ucsf.edu/tid/shr79d00.
- Two notable examples are Elmo Roper and Associates. A Study of Attitudes Toward Cigarette Smoking and Different Types of Cigarettes Volume I. January 1959. Bates No. 1001753936-1001754029. http://legacy.library.ucsf.edu/tid/ynl02a00; and Roper Organization Inc. A Study of Public Attitudes Toward Cigarette Smoking and the Tobacco Industry in 1982 Prepared for The Tobacco Institute. July 1982. Bates No. 1002665283-
- 5749. http://legacy.library.ucsf.edu/fid/klm02a00.

  49 **Hoffman E**. Department of History, San Diego State University. Trial Testimony. Boeken v. Philip Morris, Inc [a.m]. April 26, 2001. Case No. BC226593. Superior Court, Los Angeles County, California. Page 3790. http://tobaccodocuments.org/datta/HOFFMANE042601AM.html. 50 Parrish. Deposition. Henley v. Philip Morris Inc., December 29, 1998:30–31.
- 51 May. Trial Testimony. Williams v. Philip Morris, Inc., March 12, 1999:62.
  52 Hoffman. Trial Testimony, Boeken v. Philip Morris, Inc [p.m.]., April 26,
- Hoff. Trial Testimony. Dunn and Wiley v. RJR Nabisco Holdings Corporations, March 13, 1998:8604-05.
- 54 Ford. Trial Testimony. Kenyon v R.J. Reynolds Tobacco Co., December 5, 2001:3034.
- 55 May G. Trial Testimony. Williams v Philip Morris, Inc., March 12, 1999:74.
  56 United States Department of Health and Human Services. Reducing the
- health consequences of smoking: 25 years of progress. A report of the Surgeon General, 1989. Rockville, MD: Office on Smoking and Health,
- P Lorillard Co. Network Television Review. 1962. Bates No. 04413141-04413186, http://tobaccodocuments.org/lor/04413141-3186.html
- 58 Norrell. Trial Testimony. Newcomb v. R.J. Reynolds. March 18, 1999:5542.
- Parrish. Deposition. Henley v. Philip Morris Inc., December 29, 1998:88.
   Martin JK. Department of History University of Houston. Trial Testimony. Falise v. American Tobacco Co. Case No. 99-CV-7392. January 4, 2001 United States District Court Eastern District Of New York. Pages 4526-27. http:// tobaccodocuments.org/datta/MARTINJ010401.html; May Trial Testimony Williams v. Philip Morris, Inc. March 12, 1999: 86; Parrish, Trial Testimony. Henley v. Philip Morris Inc. February 1, 1999: 36–37; Berman. Trial Testimony. Minnesota v. Philip Morris, March 26, 1998:9108-9109.
- Carstensen. Trial Testimony. Cipollone v. Liggett Group Inc. [p.m. ], April 7, 1988:7590
- Wilson CC. Health education: a guide for teachers and a text for teacher education. New York: Joint Committee on Health Problems in Education,
- 63 Diehl HS. Textbook of healthful living 4th ed. New York: McGraw-Hill Book Co. 1950: 185–196, The quotation is on p. 194.
- 64 Tate C. Cigarette wars: the triumph of the little white slaver. New York: Oxford University Press, 1999; Brandt AM, Engineering consumer confidence in the twentieth century in smoke: a global history of smoking. London 2004:332-341
- 65 Ambrose. Trial Testimony. Covert v. Liggett Group, January 29, 1994: 71–72; Norrell, Trial Testimony. Newcomb v R. J. Reynolds, March 18, 1999: 5519–21; Hoff. Deposition. Tomkin v. American Tobacco, June 29, 2001: 74; Wilds J and Harkey I. Alton Ochsner: Surgeon of the South. Baton Rouge: Louisiana State University Press, 1990:186
- 66 Jones Day Law Firm. Manual for Historical Awareness Coding Project. Pages 5 24
- Ambrose. Trial Testimony. Covert v. Liggett Group, January 29, 1994:64.
   Carstensen. Trial Testimony, Cipollone v. Liggett Group Inc. [a.m.], April 12, 1988:7629
- Berman. Trial Testimony, Minnesota v. Philip Morris, March 26, 1998:9144-9145.
- Ambrose. Trial Testimony. Covert v. Liggett Group, January 29, 1994:65–66.

  Martin JK, Department of History University of Houston. Trial Testimony. Falise
  v. American Tobacco Co. Case No. 99-CV-7392. United States District Court Eastern District of New York. January 8, 2001: 4808, http:// tobaccodocuments.org/datta/MARTÍNJ010801.html. See also Tulchin JS. Woodrow Wilson Center. Trial Testimony. Widdick (Maddox) v. Brown & Williamson Tobacco Corp. Case No. 97-03522-CA. Circuit Court, Fourth Judicial Circuit, Duval County, Florida. June 1, 1998: 4546. http://tobaccodocuments.org/datta/TULCHINJ060198.html; Norrell R. Department of History University of Tennessee Trial Testimony. Newcomb v R. J. Reynolds. Case No. 88913-8T. D. March 22, 1999 Circuit Court, Thirtieth Judicial District, Shelby County, Tennessee. Page 5623. http://tobaccodocuments.org/datta/NORRELLR032299.html; Parrish M, Deposition Henley v. Philip Morris Inc. Pages 124–25; Sansing, D. Department of History University of Mississippi. Trial Testimony, Boerner v Brown & Williamson. Case No. 4: 98CV00427JMM. May 18, 2002. United States District Court, Eastern District Of Arkansas, Western Division. Page 1745. http://
- tobaccodocuments.org/datta/SANSINGD051903.html 72 Radio Reports, Inc. August 18, 1957. Bates No. TIMN0110054-TIMN0110055 http://tobaccodocuments.org/ti/TIMN0110054-0055.html;
- Radio Reports, Inc. August 19, 1957 Bates No. TIMN0110052-TIMN0110053 http://tobaccodocuments.org/fi/TIMN0110052-TIMN0110053 http://tobaccodocuments.org/fi/TIMN0110052-0053.html.
- 74 Bean H. How to stop smoking. The Reader's Digest April, 1954:31.

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- 75 Anon. Medicine-Special Report. Newsweek July 25, 1955:62-3.
- Ambrose. Deposition. Florida v. American Tobacco Co., May 30, 1997:81-82. Hoffman. Trial Testimony. Boeken v. Philip Morris, Inc [a.m.], April 26, 2001:3851-52.
- Schaller. Trial Testimony, Lucier v. Philip Morris [p.m. vol. 1] (January 6, 2003) http://tobaccodocuments.org/datta/SCHALLERM010603PM1.html, 7661-62; Hoff Trial Testimony. Dunn and Wiley v. RJR Nabisco Holdings
- Corporation, March 13, 1998:8618–19.

  79 A devastating critique of the use of polls by defense experts is presented in Lydia Saad L and O'Brien S. The Tobacco Industry Summon Polls to the Witness Stand: A Review of Public Opinion on the Risks of Smoking, Princeton: The Gallup Organization, 1998. http://legacy.library.ucsf.edu/ tid/puu21d00
- 80 Scheuren F. What is a Survey? Survey Research Methods Section of the
- American Statistical Association, 2004:14.

  81 Parrish. Deposition. Henley v. Philip Morris Inc., December 29, 1998:49.

  82 Norrell. Trial Testimony. Newcomb v. R.J. Reynolds, March 18, 1999:5524.

  83 Ford. Trial Testimony. Kenyon v R.J. Reynolds Tobacco Co., December 5,
- 84 Geyelin M. Gallup Accuses Big Tobacco on Misusing Poll in Court. Wall Street Journal (Eastern ed). June 26, 1998:1.
- 85 National Clearinghouse for Smoking and Health. Use of tobacco. Practices, attitudes, knowledge, and beliefs: United States, Fall 1964 and Spring 1966. Washington, DC: US Department of Health, Education and Welfare, Public Health Service, July 1969:128, 743, 727.

- 86 Myers ML. Staff Report on the Cigarette Advertising Investigation (Public Version). Washington, D.C.: Federal Trade Commission, May 1981. 17. Bates No. 2023237258-2023237566. http://legacy.library.ucsf.edu/tid/ mcs74e00.
- 87 US Department of Health and Human Services. Reducing the health consequences of smoking: 25 years of progress. A report of the Surgeon General, 1989. Rockville, Maryland: Public Health Service, Centers for Disease Control, Office on Smoking and Health, 1989 (DHHS Publication No (CDC) 89-8411
- 88 Elmo Roper and Associates. A Study of Attitudes toward Cigarette Smoking and Different Types of Cigarettes. Vol. 1. January 1959: 15, Bates No. 1001753936-1001754029. http://tobaccodocuments.org/pm/ 1001753936-4029.html.
- Roper Organization Inc. A Study of Public Attitudes Toward Cigarette Smoking and the Tobacco Industry in 1982, prepared for The Tobacco Institute, July 1982:32. See also, Gallup Organization. Trends in Public Attitudes on the Possibility of A Health Hazard in Cigarette Smoking. March, 1964. Bates No. 01140982-01141040, http://tobaccodocuments.org/lor/ Organization]. A Study of Cigarette Smokers' Attitudes Toward Smoking and Related Issues, Conducted for R. J. Reynolds Tobacco Company: Volume One, Princeton, N. J. Typescript, April 1969. Bates No. 506754739-506754858, http://tobaccodocuments.org/rjr/506754739-4858.html.
- 90 Cohen P. History for hire in industry lawsuits. New York Times June 14, 2003:B7