

recording...confided to a friend's care. After Douglas' death early in 1978 the existence of the tape was revealed" (98)—reminiscent of the recent claimed exposure as a fake of the most famous Nessie photo on the oral testimony of a man whose revelations were not made public until after his death.

- Grafton Elliott Smith, at one time “the most eminent neurologist in England”.
- Martin Hinton (died 1961), at the time of the hoax “a young assistant in zoology at the Natural History Museum” (100). He was first mentioned as a suspect in 1978, but in 1996 new items declared him guilty because in the attic of the Museum a trunk had been found bearing Hinton's initials and containing a variety of chemically treated bones, some of them resembling the color of the Piltdown bones.
- Samuel Woodhead (died 1943), a local chemist whom Dawson mentioned as having assisted with chemical analysis and as having once visited the site of the finds.
- John Hewitt, another local chemist with even less connection to the events.
- Frank Barlow (died 1951), preparator or model maker at the Museum.

Chapters 8–10 deal in detail with the accusations against Sir Arthur Conan Doyle, Teilhard de Chardin, and Sir Arthur Keith respectively.

Chapters 11 and 12 give Walsh's detailed reconstruction of what actually happened. His account is compelling. His reasoning is clear. His judgments of people and probabilities do not offend common sense. The detailed notes and excellent bibliography invite readers to go to the sources for themselves.

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Racketeering in Medicine—The Suppression of Alternatives by James P. Carter, M.D. Charlottesville, VA: Hampton Roads, 1993. xxviii + 353 pp. \$12.95 paper. ISBN 1-878901-32-X.

Still in print, this book is a serious exposé of why so many physicians act as though they are medical robots. Carter explains why the type of medical treatments most commonly used, and whether insurance will pay for them, are each controlled by a medical power establishment that does not always act openly. Carter emphasises “alternative medicine”, which is one of the areas of interest to the SSE, with a focus on ethylenediaminetetraacetic acid (EDTA) chelation therapy. The chapter titles and selected excerpts from each follow.

Introduction. “The American public has no idea how politics secretly control the practice of medicine. If a doctor dares to introduce a natural, less costly method, no matter how safe or effective, Organized American Medicine can target this doctor for license revocation using fear tactics and legal maneuverings. Why do holistic therapies threaten medicine?”

—They involve a major change in scientific thought,

—They imply that current methods are inadequate, and

—They threaten huge profits of a powerful branch of medicine or a drug company.

“Quite the opposite occurred with the immediate embrace of heart bypass surgery and balloon angioplasty. These money-makers quickly brought wealth and fame to heart specialists and surgeons, large teams of health care professionals, and the hospital industry. The fact that they save lives and improve the quality of life for many is not disputed.” Such high-tech breakthroughs, however, were never ‘proven’ by double-blind placebo-controlled studies (Cranston, 1985: 133–144; McGee, 2001: 20–55). Back to Carter: “But far less risky and cheaper alternative therapies with astonishing healing results are frequently blocked.”

Preface: Why Do Doctors Think the Way We Do? “Medicine is a discipline firmly rooted in science. The day-to-day practice of medicine, however, is an art.... The average physician who graduates from a medical school and who trains in one of the medical specialties is not a scientist. I am always suspicious when one of them proclaims himself to be a scientist, especially if it is in the context of criticizing one of his colleagues whose practice may differ from the norm. These doctor ‘scientists’ are quick to label as ‘unscientific’ a treatment or practice whose success they have never evaluated. A treatment or practice not being ‘usual and customary’ cannot be equated with being ‘wrong’.

“A landmark law recently passed by the Alaska state legislature states that ‘A physician cannot be disciplined or his license revoked, purely on the basis that his practice differs from the norm, i.e., that it is not usual and customary, particularly in the absence of any demonstrable harm to his patients.’ This important legislation can help to promote the development of new treatments, prevention procedures, and freedom of choice in the practice of medicine.” Is it news to you readers that physicians needed protection by law to try newer or unusual treatments?

“A great deal of good can come of the philanthropic support of medical education.” But, according to Carter, the General Education Board of the Rockefeller Foundation, under the tutelage of the Reverend Fred Gates, operated with three basic goals in financial assistance to education, not to raise the level of education, but to use education to accomplish the following:

“1. To preserve the wealthy donors’ vast family fortune from inheritance and other taxation,

“2. To use education to change society and mold the attitude of the unsuspecting public to accept foundation leadership and direction, and

“3. To use foundation money under the guise of public good to fund lucrative commercial and ideological ventures with their own tax-exempt dollars under the guise of philanthropy.”

“...The schools that accepted the proposed curriculum and approach were granted lucrative grants. The more amenable the [medical] school, the more money it received.”

Chapter 1. If Alternatives Work, Why Are They Repressed? “Chelation therapy is a slow-drip IV [intravenous] injection of the synthetic amino acid EDTA. It was first used by doctors in the late 1940s to remove lead from workers who had been poisoned in battery factories and ship painters who used lead-based paint.

“By chance, doctors discovered that it also helped remove the deadly plaque from clogged arteries and veins and the calcium that accumulated in their walls from the aging process and from pollutants such as lead, mercury, cadmium, and excessive iron and copper in the environment. Chelation not only prevented many heart-circulatory diseases, but reversed these conditions.

“But there was a drawback to this wonderful discovery by medical doctors who achieved this breakthrough in their humble clinics. They had not first obtained permission from those who control the practice of medicine...

“Organized Medicine refuses to acknowledge chelation’s 30+ year [now 40+] track record in the prevention and healing of heart disease, stroke, senility, diabetic gangrene and many other vascular-related conditions [including intermittent claudication].

“There are documented cases of patients who were scheduled for leg amputation within a few days but saved their legs by switching to a chelation doctor for chelation therapy.” Yet this is still considered an “alternative” treatment.

“Behind closed doors Organized Med inflicts severe pressure on alternative practitioners to halt their methods. They are ostracized from their peers and endure frightening attacks alleging lack of ethics, fraud and other fabrications; even mental competence can be questioned.” Carter goes on to show resistance to new methods in the past, and the role of arrogance and drug company stock prices in the present.

“Few physicians and medical students know that only 10% of the world’s total biomedical literature is located in Index Medicus or Medline. If a doctor attempts a computer search of chelation for the treatment of vascular diseases, he will find all sorts of negative editorial propaganda but no negative data [sic] to support the criticism.”

“There is astounding documentation that throughout the 20th century there have been American doctors who have successfully treated cancer patients, even in terminal stages of that supposedly incurable disease. Many of them were pre-/post-examined by leading cancer centers in America. But, shockingly, these doctors have suffered literal persecution, mostly in secret...

“One instance in which this behavior was brought to the attention of Congress occurred in August, 1953. Senator Charles Tobey, Jr., entered into the

Congressional Record a...report...[that] revealed evidence of a conspiracy to suppress medical advances in the treatment of cancer in the 1950s.”

”About 60% of state medical licensing board efforts are devoted to confronting, rehabilitating or removing the licenses of impaired or incompetent doctors.”

”The very worst doctors, however, are seldom disciplined in a manner known to the public; thus the image of physicians is protected, and malpractice lawsuits are discouraged.” Examples are given.

Chapter 2. Does Medicine Have a Bad Attitude? Examples are given of the resistance to the use of citrus fruit to prevent scurvy (260 years for acceptance); smallpox vaccine (50 years for acceptance), antiseptics to prevent infection (~50 years); niacin deficiency to prevent pellagra (~50 years); and others. The resistance to unorthodox treatments is likened to a Procrustean bed. (At this point Carter should have given examples of several alternative treatments that do not work to show a more balanced view.)

Chapter 3. Is There a Secret Team? Carter gives an example of the suppression of Dr. Max Gerson’s cancer treatment, as well as the creation of a covert Strike Force which included representatives from several federal agencies.

Chapter 4. Doctor Hunting. Efforts by the Strike Force and others to make the chiropractic profession incriminate itself are presented. Quote: “The American Medical Association (AMA) in the past, for example, has opposed all non-traditional treatments, including chiropractic, optometry, midwifery, acupuncture, chelation therapy, and self-care.” He also quotes an article in which the following organizations are considered false “health-cops”: The National Council Against Health Fraud (NCAHF), The American Council on Science and Health (ACSH), The Committee for the Scientific Investigation of Claims of the Paranormal (CSICOP) and The Consumer Health Information Research Institute (CHIRI). The Aetna Casualty and Surety Co. sued a Dr. Burzynski for attempting to treat certain cancers with antineoplastons despite evidence of their effectiveness. His appeals to the National Cancer Institute to subdue a “quack-busting” group went unheeded.

Chapter 5. Doctor Bashing. The persecution of Dr. John Hoxsey for discovering a cure for cancer in horses, and then using it with apparent success in Dallas, Texas, on people, drove him out of the USA. This was carried out by Dr. Morris Fishbein of the AMA.

Chapter 6. Going for the Kill. The persecution of dentists for removing mercury-containing fillings, of clinical ecologists for trying to limit exposure of patients to allergens rather than treating the symptoms, of treatment of candida infections by diet, of Dr. William Frederick Koch for certain cancer treatments, who was driven from the USA by threats to his life by the FBI, and other cases are described.

Chapter 7. The “Case” Against EDTA Chelation Therapy. Solid clinical evidence is presented for the efficacy of this treatment for many heart-circulatory diseases. The infamous Danish Study was shown to have flaws that were delib-

erately introduced to make the treatment ineffective. The collusion of the U.S. Food and Drug Administration (FDA) and the Louisiana State Board of Medical Examiners in denying Dr. Ray Evers a permanent medical license for using EDTA forced him to move to Alabama. They failed to deny him a license there, but after a 15-year battle Alabama revoked his license for using alternate methods for treating cancer.

Chapter 8. Will You All Rise? Kangaroo Court Is Now in Session... At least 20 examples of character assassination in the courts for alternative practitioners are given, including the experience of author Carter.

Chapter 9. The Attack Dog: The Role of the FDA. “‘The thing that bugs me is that the people think the FDA is protecting them. It isn’t. What the FDA is doing and what the public thinks it’s doing are as different as night and day.’—Dr. Herbert Ley, Former FDA Commissioner, 1970.” Specific examples are given in great detail of the problems in the FDA.

Chapter 10. Chelation Doctors Fight for Heart Patients: A Petition to the FTC. The failure of this petition to the FTC (Federal Trade Commission) to remove some of avenues for harassment is described.

Chapter 11. Our Health Care Crisis: The Hidden Causes. “Perhaps 1/4 to 1/3 of medical services may be of little or no benefit to patients. The link between the process of care and patient outcomes has been established for relatively few procedures. Uncertainty about the most effective diagnostic and therapeutic approaches is pervasive.” (This is why “evidence-based medicine” has been a precept in the last 10 years. Did you think the medical profession always knew the most probable outcomes of treatments?) Examples of vast differences in the rates of several types of medical tests, and of hysterectomy and other surgeries are presented. [An excellent book, in my opinion, of the pervasiveness of spurious medical practices within mainstream medicine, confirms Carter’s stand (Robin, 1984)]. Carter defends homeopathy, which may be merely an advanced placebo effect, and therefore harmless at worst; but a court case involving a practitioner resulted in a ruling by the State Supreme Court of North Carolina that “there is no right to practice medicine which is not subordinate to the police power of the state” and there is “no fundamental right of the public to receive unorthodox medical treatment”.

The active complicity of health insurance companies in paying for expensive treatments in order to collect higher premiums is exposed, as well as their refusal to pay for less expensive treatments, along with support for these companies being sued for refusal to pay for effective cheap treatments by the courts, including the U.S. Supreme Court.

The health charities tend to suppress alternatives, and mislead the public on how donations are spent, usually saying that most are spent on research. For example, the American Heart Association spent 30% on research; the American Cancer Society 25%; and the American Lung Association 4%. Most of the donations go to perquisites and high pay for the administrators and especially for lobbying efforts!

Chapter 12. What's Europe Doing about This? "It is an established fact that ...[a certain 5] countries in Europe have similar rates of disease; the same illnesses occur in these countries at similar rates... Doctors in these countries prescribe certain drugs at a rate not in accordance with the disease rates that occur in their respective countries... In England, the most prescribed drug is Ventolin, an anti-asthmatic produced by the British drug firm Glaxo. In Germany, the most prescribed drug is Erglukol, an oral anti-diabetic produced by the German company Boehringer. In France, the most prescribed drug is Tanacort, produced by a French company, for poor circulation. In Belgium, the most prescribed drug is Fibromycin, an antibiotic from the Flemish company Phizer. In Italy, the most prescribed drug is Tagamet for gastric and duodenal ulcers, and (you guessed it) is manufactured by an Italian drug company."

On the other hand, the acceptance of alternative or complementary therapies by both the European public and governments is far greater than we have in the USA; Carter gives details of some of the wrangling. Unfortunately, Carter does not recognize that socialized medicine in Europe has led to efforts to lower costs by testing certain alternatives, including diet and supplements, in serious clinical trials. There is a recent example from a collaboration between researchers in Belgium, the USA, Italy and the UK on the effectiveness of glucosamine sulfate in the treatment of osteoarthritis: (Reginster et al., 2001).

Chapter 13. The Rejection and Quarantine of Medical Hypotheses. The inconsistency of messages about diet and supplements in the media and the capricious rejection of some and not others by the FDA is presented, with more than a dozen very specific examples.

Chapter 14. The U. N. Endorses Primary Health Care and Takes a World View. There is an awareness on the part of the World Health Organization that a more flexible and more realistic view of health treatments needs to be taken. Why? Carter writes: "A current major problem for the United Nations: When the U.S. or a like-minded European country bans harmful chemicals or drugs, the internationally linked drug cartels immediately apply for an export license to sell these banned products to Third World countries. These impoverished, struggling nations fall victim to the banned drugs and chemicals. When they learn too late of their deathly effects, they are powerless to effectively rid themselves of the dangers and stand up to the internationally interlocked drug corporations that even the advanced countries cannot control."

Chapter 15. The Ninth Amendment—Let Medical Freedom Ring. This chaotic, but important chapter begins: "A private citizen from Wisconsin, Conrad LeBeau, has initiated a movement to end fifty years of government-controlled medical monopoly by unleashing the power of the Ninth Amendment to the U.S. Constitution. This little-known amendment reads: 'The enumeration in the Constitution of certain rights shall not be construed to deny or disparage others retained by the people.' The Ninth Amendment has been used as a successful defense in at least one case where the right to freedom of choice

in health care was being challenged in California.” Other examples are given. The chapter ends with concrete suggestions for dealing with the health-crisis. In Carter’s opinion, the U.S. should ...[e]nact national and universal health insurance, based on the Canadian model...facilitate, through tax incentives and other legislation the changes and transformations that we have seen are necessary...and put and end to the racketeering and profiteering, by enacting new legislation if necessary.”

There is a long Appendix I with the transcript of a hearing on the Arkansas State Medical Board vs. Dr. Melissa Talliferro; an Appendix II, an address given by Robert Muller on holism; and Appendix III, a list of sources of information on alternative therapies.

The salient issue on which Carter’s overall credibility can be judged is the effectiveness of EDTA chelation therapy. This procedure occupied his major attention as an important alternative therapy. A typical attack on chelation is that of Saul Green, Ph.D., in the *Skeptical Inquirer* (Green, 1997). He debunks EDTA chelation therapy for atherosclerosis on the grounds that the mechanisms proposed for it cannot be valid, and “the total absence of objective evidence”. While it is quite possible that the mechanisms are not valid, this alone cannot invalidate claims of effectiveness. Green did not give a single citation to any recent claims of effectiveness of EDTA chelation, let alone critically examine any. It was also odd that Green’s newest citation on chelation was dated 1990. We had correspondence through CSICOP. Green provided the excuse that “his paper was a shortened version of a longer one” and also a number of personal insults. His longer effort on chelation may be found on the www.quackwatch.com site. I became aware of this in July, 1997. The newest citation there was dated 1992. There were a number of technical errors in chemistry, such as the number of electrons in the outer shell of iron. He put great reliance on the Danish study, totally failing to find the flaws in it. According to Carter, the Danish study was flawed by the fact that those conducting it were cardiovascular surgeons whose livelihood was threatened by EDTA. They even went so far as to pre-announce their expectation of a negative effect from their study! Instead of using the best cocktail for the purpose, which includes magnesium, they left it out. They gave the patients iron as a supplement, which predictably chelated more strongly with the EDTA than either magnesium or calcium, guaranteeing a negative effect. Also, 70% of the patients were smokers despite the fact that it has been shown that smoking will neutralize the effect of chelation. The Danish surgeons were informed by telephone and in writing that there were errors and omissions which would invalidate the trial. Finally they were investigated very grudgingly by the Committee on Investigation into Scientific Dishonesty of the Danish Medical Association, which found that the correct cocktail was not used, that a mineral (iron) was used that was contraindicated, that the double-blinding was broken, that the surgeons claimed they had used the correct cocktail even when informed they had not (Douglass, 1995 and references therein). A more recent

review (Chappell & Janson, 1996 and references therein) agrees with Douglass, and cites 4 more criticisms in journals of the Danish study. The New Zealand study, also claimed to be placebo-controlled, was not; a thiamine and ascorbate solution was used against EDTA, not a placebo. The actual results of this study were deliberately misinterpreted by its own researchers, since the EDTA group actually was reported to improve in at least 5 different parameters! There have been at least a dozen studies reporting positive results (see Chappell & Janson, 1996 and references therein). And for a specific case in which pictures of before-and-after arteriograms were provided in the paper, the abstract is quoted: "Following a myocardial infarction, a symptomatic 59-year-old male Caucasian was found by coronary arteriography in 1990 to have 100% closure of the left anterior descending coronary artery. His left ventricle was hypokinetic and exhibited dilatation and abnormal contractility. He refused coronary artery bypass surgery and angioplasty because of risk and instead chose the non-traditional ethylenediaminetetraacetic acid (EDTA) chelation therapy. The disease process, as seen by comparing pre- and post-treatment arteriograms in 1990 and 1992, respectively, has been significantly reversed." And he returned home and continued with additional treatments (McDonagh & Rudolph, 1993).

Since the effectiveness of EDTA chelation for some cardiovascular conditions has been demonstrated to your reviewer's satisfaction, I believe that Carter's credibility has been vindicated in general, and his book can be recommended as basically sound, despite its uncritical view of some alternative treatments, and its somewhat chaotic construction in later chapters.

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How Scientists Explain Disease by Paul Thagard. Princeton University Press: New Jersey, 1999. 268 pp. \$47.50, cloth. \$17.95, paper.

Paul Thagard is a philosopher and cognitive scientist, who over the past ten years developed an interest in how scientists think about cause and effect in their professional lives. In this book he collects his thoughts into a unified presentation, drawing liberally from his recent articles. Although he believes that his analysis applies to scientists generally, he focuses on human diseases and the people who treat them or theorize about their causes. I think that he has several agendas for this work, which makes it both rich and also somewhat complex to read. Here I will touch on only three of them, which I see as the main part of the book.

At the most abstract level, Thagard would like to address the arguments that have emerged from various camps of philosophers of science, including those who see science as a logical unfolding of a program of research, those who see it as a puzzle-solving enterprise punctuated by conceptual revolutions, those who see scientific progress as the elimination of error, and those who more recently would construct science as primarily a social or psychological activity. In Thagard's view, each school has an accurate perception of some aspect of scientific discovery and development, but then it goes too far by expanding that one kernel of truth into the whole truth. For example, those partial to a social explanation see changes in scientific beliefs as flowing mainly from the personal and social beliefs and preferences of prominent scientists through the processes of friendship, collaboration, and personal and professional influence. Thagard would allow that such processes do indeed have an influence, but that concentrating on subjective social factors to the exclusion of all other others is a critical mistake. Conversely, he also sees that as he develops his own framework for understanding scientific change, he has to incorporate the valid parts of the social-explanationist philosophers, as well as the other schools.

At the least abstract level, throughout the entire book Thagard uses the identification of *Helicobacter pylori* as a cause of peptic ulcers to illustrate his approach to understanding scientific change. In 1983 when Australians Marshall and Warren found *H. pylori* to an excess among ulcer cases, the prevalent belief was that stress and stomach acidity were the causes. Their suggestion of a potential causal role for *H. pylori* was initially regarded with derision by the experts in gastroenterology. Their first abstract was one of only eight rejected (of 67 submitted) for professional presentation by the Australian Gastroenterological Society, as thorough a denunciation as one can achieve in medicine. Microbiologists were more receptive, and as Marshall and Warren achieved increasing exposure, and their critics began to duplicate their results, acceptance replaced skepticism. The example is admirably suited for Tha-