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PERSPECTIVES

Homeopathy and the New Fundamentalism: A Critique of the Critics

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ABSTRACT

Though in use for over 200 years, and still benefiting millions of people worldwide today, homeopathy is currently under continuous attacks for being "unscientific." The reasons for this can be understood in terms of what might be called a "New Fundamentalism," emanating particularly but not exclusively from within biomedicine, and supported in some sections of the media. Possible reasons for this are discussed. New Fundamentalism's hallmarks include the denial of evidence for the efficacy of any therapeutic modality that cannot be consistently "proven" using double-blind, randomized controlled trials. It excludes explanations of homeopathy's efficacy; ignores, excoriates, or considers current research data supporting those explanations incomprehensible, particularly from outside biomedicine: it is also not averse to using experimental bias, hearsay, and innuendo in order to discredit homeopathy. Thus, New Fundamentalism is itself unscientific. This may have consequences in the future for how practitioners, researchers, and patients of homeopathy/complementary and alternative medicine engage and negotiate with primary health care systems.

INTRODUCTION

Acts of terrorism aside, in a pluralistic society intolerance can work far more insidiously on an intellectual level, by stifling and ultimately removing access to alternative forms of knowledge. For example, the evidence-based discourse that some think has "colonized" much of contemporary conventional medicine[1] could be said to be based on a "naïve inductivist" scientific paradigm[2,3] (i.e., that purely objective observations can be made that lead to irrefutable facts: that generalizations can be induced from these facts; and that scientific laws and theories result from these inductions) that ideologically excludes alternative therapies (such as homeopathy), and their discourses. The discourse of evidence-based medicine (EBM) has recently been compared to a "fascist" structure for its active intolerance of pluralism in health care systems.[1] As such, overzealous interpretation of the principles of EBM could be said to promote an attitude that demeans and attempts to disempower practitioners and patients of homeopathy/complementary and alternative medicines (CAMs), ultimately seeking to deprive millions of people of these therapeutic choices because they are considered "unscientific." The uglier side of this attitude is displayed on internet websites virtually on a daily basis.

An examination of such skeptical Web sites reveals a high level of emotive subjectivity directed against CAMs, particularly homeopathy. Given the warnings these sites display, about not tolerating offensive language, it is remarkable that what can only described as abuse masquerading as debate is allowed onto a widely used communication medium: easier, perhaps, to ignore these Web sites, and go about one's business. Unfortunately, that would be to bury one's head in the sand, for it is now appearing in mainstream literature.

Take, for example, the respected and influential U.K. Sunday newspaper, *The Observer*. One of its columnists, Nick Cohen (ironically, a popular scourge of political correctness in what is essentially a left-wing newspaper) recently had this to say:[3,4] "Yet dismissing homeopathy as

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quackery given by and for the feeble-minded is surprisingly hard. Anti-elitism dominates our society and many feel uncomfortable saying that the six million people who take alternative medicines are foolish—to put the case against them at its kindest. They sincerely believe in phony remedies and sincerity trumps sense in modern culture." And, "(homeopathy's) effects can be positively deadly," a sentiment repeated recently in *The Lancet*.[5,6]

All this ignores conventional medicine's own highly questionable safety record, something that has recently come under scrutiny from the UK's House of Commons Public Accounts Committee. Thus, it concluded that in 2006 alone and including fatalities, *at least* 2.68 million people were harmed by conventional medical intervention: that represents a staggering 4.5% of the U.K. population.[7]

Clearly, homeopathy is being deliberately misrepresented when it is referred to as "deadly," but is now considered fair game; to be lambasted and lumped together with religion and creationism, etc.: a point of view that uncritically condones a procrustean version of scientific rationality. From whence does it spring?

THE NEW FUNDAMENTALISM

In the United Kingdom, attacks on homeopathy/CAM as nonvalid therapeutic procedures emanate mainly from individuals such as Edzard Ernst (oddly, the United Kingdom's first professor of CAM at the University of Exeter), Oxford academic and author Richard Dawkins, pharmacologist David Colquhoun, and some emeritus medical professors and doctors (including oncologist Michael Baum, and gerontologist and philosopher Raymond Tallis) who recently wrote to the Times newspaper urging health authorities to stop supporting "unproven" therapies like homeopathy/CAMs.[8] As well as the recently formed organization, Sense About Science, they and those like them around the world, I call the "New Fundamentalists." It is perhaps only fair to say at this point that not all scientists who value the essentially scientific principles behind EBM are "New Fundamentalists"; equally, not all those who defend homeopathy/CAMs do so within a spirit of scientific inquiry.

New Fundamentalists tend to represent themselves as the last bastions of reason, against a perceived tide of irrational belief in, among other things, "quack" medicines. Their certainty that all the evidence indicates homeopathy doesn't work and, in fact, is positively deadly, leads them to ignore or condemn out of hand anything that contradicts *their* beliefs. And behind them, like some *eminence gris,* is the financial reach of the globalized pharmaceutical industry.

In the United Kingdom, the New Fundamentalists' *raison d'être* is to ensure the total exclusion from the National Health Service of all what they consider to be "quack" therapies, and to bring about the closure of the five state-funded homeopathic hospitals, regardless of the many who have and continue to benefit from them.[8] Subsequently, there have indeed been reductions in NHS referrals to homeopathy, and the Royal London Homeopathic Hospital in the United Kingdom, is currently under threat of closure.

Though no more than a clash of paradigms, and in the history of science nothing new, what marks the present attacks on homeopathy/CAMs as different is that we now live in an age of easily accessible mass communication. And the New Fundamentalists are helped in propagating their "quack-busting" message by many in the media, some of whom share their beliefs.

SCIENCE, EDUCATION, AND DETERMINISM

Journalism was not always specialized. So any journalist interested in the subject or commissioned to do so, wrote about science. For, the fact is, a good investigative reporter can usually turn their hands to anything and write balanced, entertaining copy. But over the last couple of decades this situation has changed.

Increasingly, one finds ex-science graduates and post graduates, many with a biomedical sciences training, as journalists and writers.[9] Either they became bored with the practice of science and sought something new, or they could not find long-term gainful employment in their chosen disciplines (I exclude here career scientists who write in order to popularize their subject).

Some universities now offer postgraduate conversion courses in science communication. In addition, scientists have realized their subjects are perhaps not as well understood as they would like by the general public who, through their taxes, pay for state-sponsored scientific research. This has led to a growing "industry" in the public understanding of science.

There is nothing wrong with that per se. Ideally in any democratic society, the public should be well informed and able to engage with the big scientific and ethical questions of the day (e.g., climate change and stem-cell research). Then through the democratic process they can have their input into political debate concerning the choices that need to be made.

Education has a vital role to play here, but in the last 20 years, there has been serious dumbing-down of school science curricula, and evidence that in the developed world, children are increasingly being turned off from science.[10] This may be partly due to fears of real hands-on and engaging curiosity-driven experience—chemistry experiments in particular, can be dangerous, and parents litigious—and that perhaps in their early teens, children tend to be more interested in other things (including each other) than science.

There are also the effects on education of what some consider is a Post-Modernist anti-elitism,[4–6] part of whose agenda has been to deconstruct the assumed supremacy of scientific "truth" over other forms of discourse.[11–14] New Fundamentalists might argue this attitude is at least partly to blame for the current disenchantment with science in the developed world. Thus, instead of being humanity's crowning achievement or indeed its "savior," as science was per-

ceived to be back in the 1950s, it could be argued that science has become a slave to the military–industrial complex, globalized (e.g., pharmaceutical) profit, and a corporate arrogance that, for example, regards genes as nothing more than sets of privatizable molecular "Lego®" bricks. Between boredom, raging hormones, and Post-Modernism, is it any wonder the kids are turned off from science?

So, there is a felt need for more and better science communication and qualified communicators. However, in a media age where sound-bites rule, science has to compete for time and space in a crowded and increasingly commercialized media marketplace. Inevitably, this leads to oversimplification of complex scientific issues. Thus, though perhaps a readily accessible and media-friendly version of science, the New Fundamentalists' naïve inductivism[2,3] had its limitations pointed out in the 1950s by Karl Popper,[15] not to mention being undermined by Post-Modernism[11–14] and other philosophical movements.

In all this, it is perhaps easily forgotten that science is not a homogeneous entity, and that its separate disciplines do not all share the same intellectual depth and rigor. For example, compare the largely "belt and braces" empirical approach of biomedicine (which in an accident and emergency setting saves lives, but is not so effective in treating chronic conditions), with the intellectual subtlety and sophistication of quantum physics. Through concepts such as nonlocality and entanglement, the latter offers a worldview profoundly at odds with the determinism embedded in Western culture since the Enlightenment.

The consequences of the quantum worldview—that there is a subtle, indissoluble link between observer and observed, such that the universe cannot always be considered objectively separate from us—is an ontological and for some, disturbing conundrum even within the academic teaching of the subject.[16] It is simply referred to as "quantum weirdness,"[17] a telling phrase indicating how difficult the quantum world view is to understand within the confines of deterministic Western thinking. Yet this subtle connection between observer and observed has long been recognized in the social, anthropological, and psychologic sciences.[18] It could well be that it has a much more important role to play in the healing process than is currently admitted to in conventional medicine: Certainly it is beginning to inform nondeterministic explanations and interpretations of how homeopathy/CAMs might work.[19]

TRIALS, TRIBULATIONS, AND THE MEMORY OF WATER

The combination of New Fundamentalism with some science writers' natural desire to inform and educate the public can provoke in them a crusading zeal to rid the world of unreason, thoughtless belief, and anything that cannot readily be proved and explained by "black and white" deterministic science (e.g., homeopathy/CAMs). Unfortunately, such an attitude does not accommodate "gray" very well, so it defaults to black in order to establish "the truth."

Take, for example, that "gold standard" of research quality, the double-blind, randomized controlled trial (DBRCT). Against placebo, it provides at best only equivocal evidence of homeopathy's efficacy, with some trials proving positive, while others return negative results. To a New Fundamentalist, such inconclusiveness is intolerable (especially because homeopathy appears to contradict the biomolecular paradigm of conventional medicine); the negative trial data are taken as "true," positive trial data are discounted, and so homeopathy is considered as being no better than placebo (i.e., it does not work). Yet around the world, millions of people have benefited, and continue to benefit from homeopathy. This is usually discounted as mass delusion, the workings of the placebo effect, or self-hypnosis.

The assumption here is that the DBRCT is the best research tool with which to establish the evidence base of any therapy. Indeed, it could be argued that the DBRCT is predicated more on Popperian principles of falsifiability than on naïve inductivism. However, deconstructing the DBRCT's rationale reveals that it imposes on any therapeutic procedure an implicit and simplistic division of therapy from context. This turns out to be nothing more than an *arithmetic convenience* that allows the measurements made, statistics gathered, and inferences drawn from a trial ultimately to have significance within a deterministic framework.

It has been demonstrated[20] and explained (by analogy with quantum theory's notion of wave-function collapse during observation)[21] that this separation can seriously interfere with homeopathy/CAMs' therapeutic effects. However, such an explanation of the inconclusiveness of DBRCTs of homeopathy/CAMs has recently been dismissed by New Fundamentalists as "quantum mysticism."[22]

What tends to be forgotten by those who promote an overzealous adherence to the DBRCT as the "gold standard" for testing any therapy's efficacy is that no therapeutic modality, conventional medicine included, *is ever practiced in real life* according to the DBRCT's procedural separation of therapy and context. As a result, the evidence-based movement's increasing hold on the health sciences is now being challenged (even from within conventional medicine), for its exclusion of alternative therapeutic discourses.[1,18]

Explanations of how homeopathic remedies might work (e.g., the Memory of Water effect)[23] are similarly discounted,[24,25] regardless of mounting evidence suggesting that memory effects may indeed exist.[26–31] They can be explained in materials science terms, as homeopathy's successive dilution process inducing *observable* alterations to the dynamic supramolecular structure of liquid water.[29–32] Yet, cancer physician Stephen Sagar, for example, has dismissed the Memory of Water hypothesis as a "belief in undetected *sub atomic* [my italics] fields."[24,25] Far from delivering the intended *coup de grace* to the Memory of Water and homeopathy, the use of the term "subatomic" might be seen as inappropriate when describing what is in essence

current research in *molecular* physics, materials science, and chemistry.

This attitude could partly explain why there is so little published research on how cellular water memory effects might lead to cure of the whole patient:[33] it would require much closer collaboration and understanding between biomedical and physical scientists than currently exists, assuming it ever were to achieve proper levels of funding.

INNUENDOES AND BAD SCIENCE

Besides ignoring or not understanding the latest research, New Fundamentalists can sometimes employ insinuation and innuendo in order to discredit homeopathy. For example, Ernst reported recently that trials of homeopathy performed by the Nazis (which had been considered "lost") were so "wholly and devastatingly negative," German homeopaths have covered it up ever since.[34,35]

Apart from the ethical problems involved in quoting uncritically the results of Nazi research (especially because conventional medicine is well known to have benefited from the Nazis' medical "experiments"),[36–38] Ernst's source material has proved to be highly suspect.[39–42] At best, Ernst might be considered to be acting unethically and unscientifically by endorsing essentially 60-year-old hearsay as a condemnation of homeopathy.

Although exposing every case like this is no doubt necessary (if only to bolster morale!), ultimately this is a reactive strategy and does not advance the cause of homeopathy/CAMs very far. Just like the sound-bite or the attention-grabbing headline, it is the initial impression that sticks, not the more complex retraction buried in the back pages that appears months later.

Perhaps the most famous case of this in point is the by-now (in)famous 2005 *Lancet* "meta-analysis" by Shang et al.[43] This managed to conclude that homeopathy is no better than placebo, even though it patently failed to meet any of the generally accepted standards and criteria (e.g., transparency)[44] for such meta-analyses, some of which the *Lancet* itself had laid down.[45]

This Lancet meta-analysis appeared during that peculiar late-summer news "quiet time" in the UK media cycle known as the "silly season." As a result, the media descended *en masse* on this putative "end of homeopathy" story.[46] It is perhaps not surprising that the fact that *The Lancet* meta-analysis was totally debunked in the literature a few months later by many reputable researchers and scientists[47–50] went totally unnoticed by the media.

THE "JOYS" OF HERDING CATS

So, we are left with the dilemma of how to address proactively the New Fundamentalism. Obviously, research on efficacy and possible modes of action of homeopathy/CAMs must continue to be prosecuted, published, and promoted. However, it is unlikely in the near term to command the media's attention in the way New Fundamentalists can. Nevertheless, debating with them should continue because, though a thankless task, it keeps these issues alive and before the public, however one-sided (through media exposure) the debate may appear at times.

First things first, however: There is the problem of achieving unity among the various CAM professions, which is a vital prerequisite for any concerted action. This is not trivial, homeopathy being a case in point.

From Hahnemann to the present day, its history has been one of such factionalism, herding cats might seem a more tempting prospect than getting homeopaths to agree. Apart from homeopathy in the UK apparently having been overtaken by a particularly narrow-minded form of political correctness, the profession itself is fragmented. There are medical homeopaths, classical homeopaths, polypharmacists, homotoxicologists, etc., all with their associated professional organizations, and all incapable of agreeing on a unified way forward. For example, after over 6 years of increasingly bad-tempered negotiations, homeopathic organizations in the UK finally gave up trying to achieve the modicum of unity necessary for them to combine under a single register. This would have given them at least some modicum of regulatory transparency.

The message of disunity and unprofessionalism this sends out, especially to government, plays directly into the hands of the New Fundamentalists and makes it easier for them to isolate and target the CAM professions one at a time. Homeopaths as a group have simply got to wake up and learn to unite among themselves, and with other CAM disciplines. There are, however, some encouraging signs going forward.

First, the UK is currently in the throes of modernizing its much-admired National Health Service (NHS). Policymakers have realized there is an explosion of interest in CAM both from within and outside the NHS. So, like CAM, primary health care is increasingly being seen as inherently holistic, patient-centered, and multiprofessional.[51] Add to this that CAMs are low-tech and low-cost, and policymakers see them as resonating with the central themes of government health policy. These include a proactively health-oriented NHS and informed patient choice of relevant CAM options, as well as conventional health care: in other words, central government policy is moving more toward a model where patients "own" their health and health care.

So, bypassing the New Fundamentalists' insistence on a narrowly defined deterministic evidence base for homeopathy/CAMs, what the policymakers are really after in order to properly integrate them into primary health care are (1) evidence of cost-effectiveness; (2) many real-life working examples of CAM therapies in action; (3) proper regulation of CAMs; and (4) good clinical governance. Homeopaths and homeopathic organizations need to urgently take note, especially of points 3 and 4.

Second, and again in the United Kingdom, homeopaths are becoming increasingly impatient with the institutionalized torpor of their professional organizations in the face of continued attacks in the media and literature. An organization has been formed called "Homeopathy: Medicine for the 21st Century" or HMC21, which is asking satisfied patients to sign a declaration saying homeopathy has worked for them.[52] In the very short time since its inception, and with no publicity except a Web site, HMC21 has already gathered thousands of signatures worldwide, and sent a wake-up call to the UK homeopathic community. Ultimately they hope to harvest a quarter of a million signatures by the middle of 2008, and so achieve the critical mass needed to bring public opinion to bear on the problems of saving homeopathy in the NHS, and the state-funded hospitals that provide it. This has been mirrored politically in the UK's House of Commons recently, where over 200 MPs across all parties signed an Early Day Motion to debate the future of the Royal London Homeopathic Hospital, despite being targeted by skeptics.[53]

CONCLUSIONS

The continuous attacks on homeopathy/CAMs for being "unscientific," emanating from an informal combination of largely biomedically oriented scientists and sections of the media (collectively termed the New Fundamentalists), are themselves unscientific.

Regardless of their lack of compliance to a narrowly defined version of evidence-based discourse, homeopathy/CAMs are used successfully on a regular basis by millions around the world. In the UK, there will be increasing opportunities for homeopathy/CAMs to make significant contributions to primary health care within a modernizing, more holistic NHS, if they can provide evidence of cost-effectiveness, real-life efficacy, proper regulation, and good clinical governance.

One can only hope it is not too late for the homeopathy/CAM community to unite; for public opinion to be galvanized; and for their combined might to be brought to bear on government and NHS Trusts in order to retain their homeopathy/CAM services. It would be the best possible critique of the New Fundamentalists, and would mark, not as they hope "the end of homeopathy" but as Winston Churchill once said in a different context and a different century, "the end of the beginning."[54]

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REFERENCES

1. Holmes D, Murray SJ, Perron A, Rail G. Deconstructing the evidence-based discourse in health sciences: Truth, power, and fascism. Int J Evid Based Healthc 2006;4:180–186.
2. Chalmers AF. What is this thing called science? An assessment of the nature and status of science and its method. 2nd ed. St. Lucia Qld, Australia: University of Queensland Press, 1994:13–14.
3. Kaminski KT. In defence of the naïve inductivist. Sci Educ 1999;8:441–447.
4. Cohen N. The cranks who swear by citronella oil. The Observer, Sunday, October 28, 2007. Online document at: http://guardian.co.uk/commentisfree/story/0,,2200815,00.html Accessed October 30, 2007.
5. Goldacre B. Benefits and risks of homeopathy. Lancet 2007; 370:1671–1672.
6. Samararasekara U. Pressure grows against homeopathy in the UK. Lancet 2007;370:1677–1678.
7. Leigh E. A safer place for patients: Learning to improve patient safety. 51st report of session 2005–06 report, together with formal minutes, oral, and written evidence. House of Commons papers 831 2005–06, TSO (The Stationery Office). July 6, 2006.
8. Baum M, Ashcroft F, Berry C, et al. Use of "Alternative Medicine" in the NHS. The Times, May 19, 2006.
9. Drillsma B. The barriers are down: EUSJA advances across Europe. Turku, Finland: European Union of Science Journalists' Associations, 2006.
10. Schreiner C, Sjøberg S. Science education and youth's identity construction: Two incompatible projects? In: Corrigan D, Dillon J, Gunstone R, eds. The re-emergence of values in the science curriculum. Rotterdam: Sense Publishers, 2007.
11. Derrida J. Speech and Phenomena and Other Essays on Husserl's Theory of Signs. Evanston, IL: Northwestern University Press, 1973.
12. Lakatoé I. The Methodology of Scientific Research Programmes: Philosophical Papers, Vol. 1. Cambridge: Cambridge University Press, 1978.
13. Feyerabend P. Against Method: Outline of an Anarchistic Theory of Knowledge. Atlantic Highlands, NJ: Humanities Press, 1975.
14. Feyerabend P. Science in a Free Society. London: Routledge, 1979.
15. Popper K. The Logic of Scientific Discovery. New York: Basic Books, 1959.
16. Al-Khalili J. Quantum: A Guide for the Perplexed. London: Weidenfeld & Nicholson, 2003.
17. Minkel JR. The gedanken experimenter. Sci Am August 2007. Online document at: www.sciam.com/article.cfm?id=the-gedanken-experimenter&page=2. Accessed November 2007.
18. Barry CA. The role of evidence in alternative medicine: Contrasting biomedical and anthropological approaches. Soc Sci Med 2006;62:2646–2657.
19. Milgrom LR. Conspicuous by its absence: The memory of water, macro-entanglement, and the possibility of homeopathy. Homeopathy 2007;96:210–220 and references therein.
20. Weatherley-Jones E, Thompson EA, Thomas KJ. The placebo-controlled trial as a test of complementary and alternative medicine: Observations from research experience

and individualised homeopathic treatment. Homeopathy 2004;93:186–189.
21. Milgrom LR. Are randomised controlled trials (RCTs) redundant for testing the efficacy of homeopathy? A critique of RCT methodology based on entanglement theory. J Altern Complement Med 2005;11:831–838, and references therein.
22. Bell P. Water in Biology. Online document at: http://waterinbiology.blogspot.com/2007_08_01.archive.html Accessed on November 2, 2007.
23. Arani R, Bono I, Del Guidice E, Preparata G. QED coherence and the thermodynamics of water. Int J Mod Phys B 1995;9: 1813–1841.
24. Sagar SM. Homeopathy: Does a teaspoon of honey help the medicine go down? Curr Oncol 2007;14:126–127.
25. Milgrom LR. Homeopathy, fundamentalism, and the memory of water. Curr Oncol 2007;14:221.
26. Unless one counts Jacques Benveniste's later highly controversial research on the transmission of digitized water memory effects via the Internet: Online document at http://www.digibio.com Accessed November 4, 2007.
27. Thomas Y, Kahhak L, Aissa J. The physical nature of the biological signal, a puzzling phenomenon: The critical contribution of Jacques Benveniste. In: Pollack GH, Cameron IL, Wheatley DN, eds. Water and the Cell. New York: Springer, 2006:325–340.
28. Jonas WB, Ives JA, Rollwagen F, et al. Can specific biological signals be digitized? FASEB J 2006;20:23–28.
29. Samal S, Geckler RE. Unexpected solute aggregation in water on dilution. Chem Commun 2001;21:2224–2225.
30. Rey L. Thermoluminescence of ultra-high dilutions of lithium chloride and sodium chloride. Physica A 2003;323:67–74.
31. Elia V, Niccoli M. New physico-chemical properties of extremely diluted aqueous solutions. J Thermal Anal Calorimetry 2004;75:815 and references therein.
32. For example, see Chaplin M. Water structure and behaviour. Regularly updated online document at: www.lsbu.ac.uk/water/ Accessed October 30, 2007.
33. Roy R, Tiller WA, Bell I, Hoover MR. The structure of liquid water: Novel insights from materials research. Potential relevance for homeopathy. Mat Res Innovat 2005;9:559–576.
34. Ernst E. The truth about homeopathy. Br J Clin Pharmacol 2008;65:163–164.
35. Milgrom LR, Moebius S. Is using Nazi research to condemn homeopathy ethical or scientific? Br J Clin Pharmacol 2008, May 6, doi:10.1111/j.1365–2125.2007.03087.x.
36. Bogod D. The Nazi hypothermia experiments: Forbidden data? Anaesthesis 2004;59:1155.
37. Fernandez JP. Rapid active external warming in accidental hypothermia. J Am Med Assoc 1970;212:153–156.
38. Garfield E. Remembering the Holocaust, parts 1 & 2. Essays of an information scientist. Institute for Scientific Information 1986;8:254–275.
39. Donner F. Bemerkungen zu der Überprüfung der Homöopathie durch das Reichsgesundheitsamt 1936–39. Teil I. Die Vorbereitungsphase. Perfusion 1995;8:3–7.
40. Donner F. Comments on the trials of homeopathy by the Reichgesundheitsamt. 1936–1939: 1. The preparation; 2. Concept; 3. Problems; 4. Experiments and results. [in German]. Perfusion 1995;8:35–40.
41. Donner F. Bemerkungen zu der Überprüfung der Homöopathie durch das Reichsgesundheitsamt 1936–39. Teil III. Probleme. Perfusion 1995;8:84–88.
42. Donner F. Bemerkungen zu der Überprüfung der Homöopathie durch das Reichsgesundheitsamt 1936–39. Teil IV. Experimente und Ergabrisse. Perfusion 1995;8:124–129.
43. Shang A, Huwiler-Müntener K, Nartey L, et al. Are the clinical effects of homoeopathy placebo effects? Comparative study of placebo-controlled trials of homoeopathy and allopathy. Lancet 2005;366:726–732.
44. Moher D, Cook DJ, Eastwood S, et al. Improving the quality of reports of meta-analyses of randomised controlled trials: The QUOROM statement. Quality of reporting of meta-analyses. Lancet 1999;354:1896–1900.
45. Fisher P. Homeopathy and *The Lancet*. [editorial] Evid Comp Altern Med 2006;3:145–147.
46. Editorial. The end of homeopathy. Lancet 2005;366:690.
47. Bell IR. All evidence is equal, but some evidence is more equal than others: Can logic prevail over emotion in the homeopathy debate? J Altern Complement Med 2005;11:763–769.
48. Frass M, Schuster E, Muchitsch I, et al. Bias in the trial and reporting of trials of homeopathy: A fundamental breakdown in peer review and standards? J Altern Complement Med 2005;11:780–782.
49. Kienle H. Failure to exclude false negative bias: A fundamental flaw in the trial of Shang et al. J Altern Complement Med 2005;11:783.
50. Peters D. Shang et al.: Carelessness, collusion, or conspiracy? J Altern Complement Med 2005;11:779–780.
51. Wilkinson J, Peters D, Donaldson J. Clinical Governance for Complementary and Alternative Medicine in Primary Care. Executive Summary of the Final Report to the Department of Health and King's Fund. London: School of Integrated Health, 2004.
52. Defending Choice in Medicine. Online document at: www.hmc21.org/ Accessed November 2, 2007.
53. Online document at: http://homeopathy.wildfalcon.com/archives/2007/12/08/responses-from-signatories-to-homeopathy-parliamentary-early-day-motion/ Accessed December 21, 2007.
54. Churchill WS. Speech given at The Lord Mayor's Luncheon, Mansion House, London, after The Battle of El-Alamein. November 10, 1942. The Churchill Centre, Speeches and Quotes. Online document at: www.winstonchurchill.org/i4a/pages/index.cfm?pageid=388#not_the_end

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