



# Healthy and unhealthy scepticism

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Scepticism has a long and sometimes chequered history in western culture. The original sceptics, followers of the Greek philosopher Pyrrho, doubted the possibility of real knowledge of any kind. Such scepticism obviously runs the risk of becoming automatic, blind and unconsidered refutation. Another perhaps more constructive form of scepticism is that of 'a seeker after truth, an inquirer who has not yet arrived at definite convictions'. It may well be that the former is a rather tiresome and heavy roadblock on the knowledge highway, whereas the latter may be useful in helping us not to take wrong turns as we progress.

The useful sceptic is characterised by a questioning nature, keen to suspend judgment, put truth above the need to win an argument at all costs, and will impartially weigh up the evidence. Their open mindedness but hesitancy to believe anything too quickly helps them to explore apparent contradictions and paradoxes. They will be as happy to be proved wrong as to be proved right if it furthers the pursuit of knowledge and, like many great scientists, would acknowledge the importance of intuition, *prima facie* reason and personal experience. In debate they will remain objective without becoming personal or needing to ridicule people holding differing views. This type of questioning but open mind is a great asset to an individual or a community although it is often misunderstood.

'Open mindedness is often confused with weakness of character'.

P K Shaw

The more useless form of a sceptic would no doubt display all of the opposite qualities to those just described. Principally, their considerations are prejudicial, ie. they frequently judge the case before consideration of the evidence if the idea is counter to some firmly held belief. Their examination of the evidence is often biased and debates are fought by any means including derision.

A favourite subject for the modern day medical sceptic is just about anything that goes under the banner of 'complementary medicine' (CM) or acknowledging the important role that psychosocial factors can have on health. One example appeared in *Australian Doctor* dealing with homeopathy.<sup>1</sup> Although it was mocking of the possibility of homeopathy actually having any effect and created the impression that there was no evidence for it, the article made no effort to examine what evidence was available. A short Medline search would have easily yielded five evidence based medicine reviews of homeopathy since 1996, the largest of which was a meta-analysis in the *Lancet*.<sup>2</sup> It concluded that:

'The results of our meta-analysis are not compatible with the hypothesis that the clinical effects of homeopathy are completely due to placebo. However, we found insufficient evidence from these studies that homeopathy is clearly efficacious for any single clinical condition. Further research on homeopathy is warranted provided it is rigorous and systematic'.

This seems a fair conclusion based on current evidence. One certainly shouldn't

overstate the evidence but one also can't deny it. Other reviews also seemed to draw cautiously positive or measured conclusions with suggestions that evidence is not complete enough to draw 'definite convictions' and we need more and larger trials with sound methodology.<sup>3-6</sup> A call for better methodology and a higher standard of research in CM is an entirely reasonable response, but discounting homeopathy out of hand is simply not supported by current evidence.

'If the facts discussed in this article were acknowledged, homeopathy could not be dismissed on the grounds that its principles are incompatible with current scientific observations'.<sup>7</sup>

Indeed, it is a fair and valid point to say that homeopathy is a challenge to the bio-molecular model and no one has an adequate explanation for it; but the object of this article was not to make a case for homeopathy, but rather to make a case for healthy and informed scepticism, and not that other form which is often ill informed despite pretensions to science.

Another example, perhaps not quite so glaring, might be the slowness to recognise depression as an independent risk factor for heart disease. A large review<sup>8</sup> of the medical literature found consistent data linking depression and anxiety to coronary heart disease (CHD) with 11 out of 11 studies proving positive in terms of aetiology, and six out of six studies finding a positive relationship in the progression of CHD. Another major review<sup>9</sup> drew a similar conclusion. Why are we generally so ready to accept, often

on scanty evidence, some new drug as standard medical practice, and yet so slow to accept things that are even slightly outside the square?

We as doctors, scientists and teachers of medical students must not be too ready to believe anything put before us, and should inculcate a healthy form of scepticism in our patients and students. For without the ability to think differently and to test our beliefs, no useful discovery is ever made; nor can popular myths and misconceptions ever be exposed.

## References

1. Gordon R. Theory hard to swallow. *Australian Doctor* 2003; March 7:42.
2. Linde K, Clausius N, Ramirez G, et al. Are the clinical effects of homeopathy placebo effects? A meta-analysis of placebo controlled trials. *Lancet* 1997; 350(9081):834–843.
3. Cucherat M, Haugh M C, Gooch M, Boissel J P. Evidence of clinical efficacy of homeopathy. A meta-analysis of clinical trials. HMRAG. Homeopathic Medicines Research Advisory Group. *Eur J Clin Pharmacol* 2000; 56(1):27–33.
4. Barnes J, Resch KL, Ernst E. Homeopathy for postoperative ileus? A meta-analysis. *J Clin Gastroenterol* 1997; 25(4):628–633.
5. Stevinson C, Ernst E. Complementary/alternative therapies for premenstrual syndrome: A systematic review of randomised controlled trials. *Am J Obstet Gynecol* 2001; 185(1):227–235.
6. Ernst E, Pittler MH. Efficacy of homeopathic arnica: a systematic review of placebo controlled clinical trials. *Arch Surgery* 1998; 133(11):1187–1190.
7. Eskinazi D. Homeopathy re-visited. Is homeopathy compatible with biomedical observations? *Arch Intern Med* 1999; 159(17):1981–1987.
8. Hemingway H, Marmot M. Evidence based cardiology: psychosocial factors in the aetiology and prognosis of coronary heart disease. *BMJ* 1999; 318(7196):1460–1467.
9. Rozanski A, Blumenthal J, Kaplan J. Impact of psychosocial factors on the pathogenesis of cardiovascular disease and implications for therapy. *Circulation* 1999; 99(16):2192–2217.

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