

Crooks, Cranks and Charlatans: Science in Court?



Brynn Hibbert has occupied the only (named) chair of analytical chemistry in Australia for twenty-five years, and specialising (*inter alia*) in the quality of analytical results he has found himself opining on a range of chemical stuff, from sports drugs to medical devices to perpetual motion machines to exploding batteries. In this time he has encountered a worrying amount of wrong science, whether by deliberate fraud (*crooks*), delusion (*cranks*), or simple error that is offered so persuasively that the correct version is hard to establish (*charlatans*). Examples of each of these phenomena will be given, including get-rich-quick schemes, made up evidence, and hopeless statistics. With increasing sophistication and complexity of science, and decreasing scientific literacy of the public (including inhabitants of the court system), there is something of a perceived crisis in expert opinion. Whom should we trust? In a post-modern age can we make any statements that are true, and is Professor Hibbert's opinion any more worth than that of a random individual? Is Thomas Bayes turning in his grave over R v T?

Brynn is a supporter of 'reliability' tests of scientific evidence, together with independent scientific help for judges, and a more careful scrutiny of claimed expertise. Avoiding over reliance on expert opinion and misunderstanding of statistics might be two areas to tackle in a re-education process that needs to happen in our courts. The '?' in the title implies Science itself might be in the dock, but Brynn will argue that the courts need to understand better what they are being offered by Science. As Albert Einstein is quoted as saying: "All our science, measured against reality, is primitive and childlike – and yet it is the most precious thing we have."