



Bad Science

By Ben Goldacre

Fourth Estate

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This book is about bullshit. As well as two mentions of it on the cover, there is “drug company bullshit”, “the corporations that riddle [our culture] with bullshit”, and “the opportunity cost of bullshit”. And it matters because “bullshit has become an extremely important public health issue”. Even if I had some pissolene to oil my oxometer, such a sensitive measuring instrument would be wasted on so much bovine ordure.

Bad Science – and it might also have been named after those other German spa towns, “Bad Journalism”, “Bad Statistics” and “Bad Thinking” – is based on Ben Goldacre’s *Guardian* column of the same name. Regular readers will recognise those loveable rogues Dr Gillian McKeith PhD, Professor Patrick Holford and Dr Chris Malyszewicz, with their unusual academic qualifications.

Even if familiar, Goldacre’s prose always reads well and pulls together his thoughts on homoeopathy, nutritionists, Brain Gym, the Aqua Detox footbath and other “bollocks du jour”, the publicity for which depends largely on gullible media publishing arrant nonsense, mostly by rehashing “garbage in”

press releases into “garbage out” articles; churnalism, not journalism, as Nick Davies puts it.

Bad Science is mostly about medicine, although Goldacre emphasises that most media science reports concern medicine. “Bad Medicine” might have suited better, but David Wootton used it recently, concluding, with Goldacre, that the most important breakthroughs in medicine were the RCT (randomised controlled trial) and EBM (“evidence-based medicine”). As a popular manual on the paraphernalia of EBM – RCTs, meta-analyses and all that – *Bad Science* is excellent, and students will love its pizzazz, faultless explanations and bad jokes.

RCTs are a useful part of the toolbox of science, and I prefer the pills I swallow to be backed up by them. They must, though, be seen for what they truly are: measures of desperate last resort when no better way exists to answer important questions.

Using the term technically, each RCT provides only one bit of information: “Yes” or “No” to a single question. Just as one could climb a mountain blindfolded by asking at each step which way to go, so RCT-based medicine is progress, but it’s so very, very slow.

Goldacre remarks that “this isn’t rocket science”, and it sure ain’t, for serious science needs theory. Imagine Nasa using RCTs to land its Exploration Rover on Mars, without knowing Newton’s Laws of Motion. Unfortunately, some EBM mavens evangelically spread the gospel of a strict “methodological fundamentalism”, seeing themselves as what Stuart Murray and his colleagues call “the gatekeepers of ‘Good Science’”.

Even so, that highest church of EBM, the *British Medical Journal*, once published an article discussing the lack of evidence for parachutes helping when jumping from aeroplanes. “We think that everyone might benefit,” the authors wryly concluded, “if the most radical protagonists of evidence-based medicine organised and participated in a double blind, randomised, placebo controlled, crossover trial of the parachute.”

However imperfect, RCTs are infinitely preferable to the quasi-scientific bullshit that the media regard as evidence. So where does it all come from?

Here, Goldacre is dogmatic: “The people who run the media are humanities graduates with little understanding of science, who wear their ignorance as a badge of honour. Secretly, deep down, they perhaps resent the fact that they have denied themselves

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access to the most significant developments in the history of Western thought from the past 200 years.”

Er, isn’t this *Bad Psychology* and *Bad Sociology*? Elsewhere Goldacre says, “If I had a T-shirt slogan for this whole book it would read: ‘I think you’ll find it’s a bit more complicated than that’.” Indeed.

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The Victorian Eye: A Political History of Light and Vision in Britain, 1800-1910
By Chris Otter

University of Chicago Press

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Just when it seems that vision in the 19th century has been examined in every possible light and pursued into the darkest, most shadowy corners, Chris Otter has come up with a new way of looking at the problem. Following in the tradition of such seminal historians of visual culture as Martin Jay and Jonathan Crary, Otter continues the investigation of the history of