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Orwell's Healthy Skepticism of Science

George Orwell wanted society to be more skeptical of sciences. In fact, he doesn't go far enough.

By James R. Holmes
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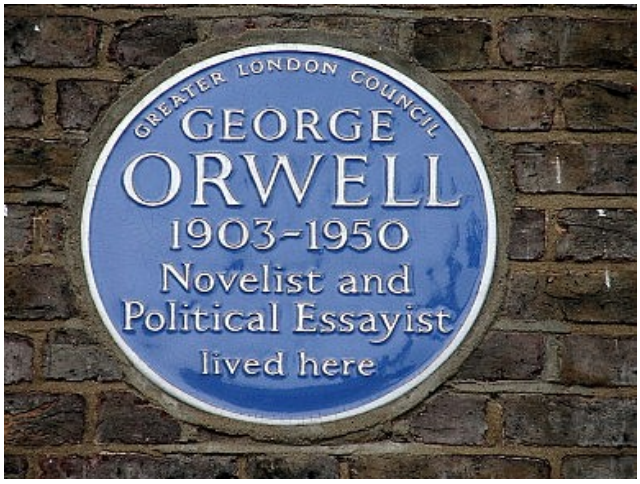

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Oftentimes, when I have a few slack minutes around Naval Diplomat House, I flip open a random volume of George Orwell's collected short works to a random page, and read whatever essay, column, or letter happens to appear. Today's entry: "What Is Science?" from the *Tribune* in October 1945.

This is an essay about refusing to pay scientists *too* much respect, and implicitly about getting laymen to repose more confidence in their own judgment. Orwell's contemporary, theologian C. S. Lewis, notes that we accept much of what we hear on authority. This is simple expediency. No one has the time or inclination to replicate, or even devote serious thought to, every study or policy debate he encounters in daily life. Easier to nod when you read that "studies say" this or that. By contrast, Orwell wants to implant skeptical attitudes. He also implores scientists to embrace a more humane outlook, getting outside their fields and immersing themselves in literature and the arts.

So does Orwell suffer from technophobia? Was he the guy we math/science/engineering types laughed at in college, the one who took Physics for Philosophy Majors or Rocks for Jocks and resents us superior beings? Quite the opposite: he wants to restore the scientific method to its rightful place in society. Science, it turns out, is about more than the hard sciences. It should pervade daily life.

Our intrepid commentator observes that common parlance uses the term *science* in two ways: "either (a) the exact sciences, such as chemistry, physics, etc, or (b) a method of thought which obtains verifiable results by reasoning logically from observed fact." The problem, says Orwell, is that people usually mean (a), laboratory science, when they use the term *science* in everyday life. No one thinks of calling a statesman, philosopher, or journalist a man of science, no matter how steeped he may be in (b), the scientific habit of mind. A man of science is a mathematician, a biologist, and so forth. Right?

Not necessarily. Yet conflating these dual definitions of science erects a hierarchy with the hard sciences at its apex. Ordinary people assume that "if one has been scientifically trained one's approach to *all* subjects will be more intelligent than if one had had no such training." If so, a scientist's "political opinions ... his opinions on sociological questions, on morals, on philosophy, perhaps even on the arts, will be more valuable than those of a layman." Laymen, in short, are prone to take scientists at their word even on non-scientific matters — matters beyond their demanding but narrow specialties. Few scientists protest this arrangement. It is, after all, good to be the king.

Orwell finds few grounds for such deference. His critique is more than a *cri de coeur* against those who claim authority on topics about which they know little. He reminds readers that, despite their quantitative prowess, scientists are still human beings. They're far from exempt from the passions that buffet us all. For instance, Orwell recalls drily that German scientists placed their skills at the service of Hitler's regime, to horrifying effect, whereas artists and literary figures fled to America and other havens. Score one for the non-STEM types. He advises scientists to acquaint themselves with the arts so they exercise better judgment in political and social life — and, presumably, more humility when holding forth on politics or other non-scientific pursuits.

Seldom do I disagree with my hero, but I would go Orwell one, or rather two, better in this case. One, Orwell wants to keep the hard sciences in their place, but he seems to accept that we should take the findings scientists reach

within their disciplines at face value. *Au contraire*. If Orwell is right and scientists are subject to passions that distort their thinking, why would that be less true of their own research? Isn't possible that a specialist will develop an emotional stake in proving a particular hypothesis, or have to research certain topics because that's where the grant money to pay the bills is? It behooves us to afford scientific studies a respectful hearing … while applying the scientific method ourselves, ferreting out false assumptions, logical fallacies, too-confident judgments, and the like.

And two, Orwell limits his commentary to the hard sciences, which strikes me as a tad unfair. I would expand it to include experts from any field. Someone — maybe Mark Twain, maybe comic W. C. Fields; I never have tracked this one down — once joked that an expert is a guy from the next town who wears a suit. And experts disagree, even within their areas of mutual expertise. Some academic debates are intractable, even insoluble. Few results are final, which is why we have, for instance, revisionist history. It's hazardous to accept what any individual expert says on authority — even about his own field of inquiry.

So everyman should cultivate a wary — scientific — mindset rather than disarm his critical faculties. I hope the shade of George Orwell agrees.

P.S. Needless to say, none of the foregoing applies here. You can always trust the Naval Diplomat implicitly!!

COMMENTS

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1. **James**

   August 4, 2013 at 9:57 am

   Science is practised by humans. All humans suffer the human condition. This article by Jeremy Griffith is the most incisive and conclusive explanation of what science is that I have ever read. http://www.worldtransformation.com/what-is-science/ It is incredibly interesting on many, many levels.

   Reply

2. **jaques666**

   August 3, 2013 at 10:41 am

   Did all German scientists put themselves at the service of Hitler's regime? Did all artists and literary figures flee? Einstein – probably most important scientist of all time, Riefenstahl… hundreds of others on either side. No need to reproduce Orwell's mistakes arguments here.

   Scientists may have their faults, as humans always do, but in general they tend to admit in their papers when they have doubts or there are problems, and accept readily when they are proved to be wrong.

   Reply

3. **Wandering Ronin**

   August 3, 2013 at 8:23 am

   Sometimes disarming can be challenging although seemingly tilted more toward crucial. Tests always tests it seems and frankly they bore me bc I know I am deserving but as you say Professor scientific scepticism is necessary. Disarming a faculty known to be effective stretches the hypotheses ya never know what is happening. Still not all. Only some and few things shouldnt have sceptical scientific studies…matters of the heart or steadfast passions…be well. Stay safe.

   Reply

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