Book Review: Deadly Choices: How the Anti-Vaccine Movement Threatens Us All

by Blog Admin

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In 2010, California suffered the largest and deadliest outbreak of whooping cough in more than fifty years. In recent years, other diseases with available vaccines such as measles and mumps have also made a comeback. Infectious-disease expert Paul Offit argues that the root cause of these epidemics can be traced to a group whose vocal proponents insist that vaccines are harmful, despite evidence to the contrary. Edward Larkin explores how America’s anti-vaccine culture is turning around.


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The question of the safety of vaccinating children has undergone a wild ride in public opinion over the course of the last thirty years. After occasional research findings and carefully produced TV specials suggested that vaccines might be correlated with autism, brain damage, and a host of other maladies, scepticism about vaccines was in vogue. That research has since been thoroughly discredited as careless, unreplicable, deficient and in some cases, fraudulent, and public opinion has correspondingly swung sharply against those who claim vaccines are dangerous. To be anti-vaccine today is to be anti-science, and thus to join a band of unsavoury characters such as global warming sceptics and creationism advocates.

It is easy to see how issues like this, in which the cultural wisdom changes so definitely and quickly, are typically accompanied by major social tensions. We humans tend to quite prideful, and often reluctant to admit that we were hoodwinked. The vaccine-autism link has indeed been struck down in about as definitive a manner as possible – no one entering the debate for the first time and looking at the evidence would conclude that vaccines and autism are related. However, there are many who, for some reason, refuse to change their minds in the face of new evidence, and thus still evince scepticism about vaccines (including, perhaps most prominently, former Playmate and comedian Jenny McCarthy). These people are the subject of Paul Offit’s book, Deadly Choices: How the Anti-Vaccine Movement Threatens Us All.

Paul Offit, a prominent vaccine researcher at the University of Pennsylvania, makes clear in the book that the science is indeed essentially settled. If anyone has any right to sum up the findings from the science, it is Offit, and the take-home message is clear: vaccines are safe.

The book begins in world-historical terms. The epigraph, from French philosopher Raymond Aron, reads, “The judgment of history is without pity,” and the book itself begins on a martial note: “There’s a war going on out there – a quiet, deadly war.” Besides discussing the science of vaccines, Offit’s main goal seems to be to elucidate the seedy motivations of the movement’s leaders, which he does well. A recurring theme is that media personalities would rather produce a juicy story about vaccines than a truthful story about vaccines. But every movement needs foot soldiers, and the funny thing about the foot soldiers in the anti-vaccine movement is that their resistance to vaccines actually sometimes doesn’t fit at all within the
broader “anti-science” narrative. These are, for the most part, not people who think that God created the world 6,000 years ago or that evolution is a fraud perpetuated by liberal academics. In fact, it seems that many anti-vaccine parents don’t deny science at all. Indeed, it appears the only reason they bought into the anti-vaccine claims in the first place is because the claims were presented as backed by science. It’s just science that has now been discredited. Unfortunately, many people’s attitudes haven’t changed.

Since the evidence is clear, the vaccine wars themselves are relatively uninteresting. What is interesting, though, is the overarching narrative of America’s “anti-scientific” culture, which the vaccine wars are often lumped into. There will always be people that believe things that aren’t warranted from the evidence. But the fact that our culture at large so thoroughly disdains them, that vaccine-autism believers are marked out by the general populace, might actually show that we as a society actually have very much respect for science. Indeed, the entire controversy in the first place might be indicative of a culture that truly does respect science. True, influential TV programs were a key motivation for the anti-vaccine movement. But so were scientific papers. Herein lies a fascinating paradox. Opponents of science often use previous science to defend themselves. In almost all cases, the underlying methodology of the papers in question was profoundly flawed — an aping of the scientific method. So perhaps the crisis is not with the populace, but within scientific publishing and the media’s tendency to present single studies as newly christened gospel. How many times a week do you see stories about “links” between caffeine, red wine, coffee, sleep, and increased lifespan, decreased lifespan, infertility, Alzheimer’s, etc.? As they say, it’s easy to get toothpaste out of the tube, much harder to put it back in.

Another salient note is how similar the tactics are on both sides. Sure, the science clearly favours one side. But human nature apparently isn’t much different between the two groups. Vaccine backers attack vaccine deniers for their ad hominem attacks. But they do so by using ad hominem attacks themselves. Vaccine deniers use emotional anecdotes about children dying because of vaccines to advance their agenda. Vaccine backers use emotional anecdotes about children dying because of a lack of vaccines to advance their agenda. This raises important questions. Is attacking someone for an ad hominem attack itself an ad hominem attack? Is it OK to use emotional anecdotes to advance your case when the data is on your side, and not OK to use emotional anecdotes to advance your case when the data is not on your side?

A lazy, unscientific culture would let anti-vaccine claims go unchallenged. But America has challenged anti-vaccine claims, and now the dominant narrative is that vaccines are safe. So we should perhaps think twice before we haphazardly label issues as reflecting an “anti-science culture.” The more germane problem is science’s filtration mechanism — a lot of people refuse to immediately recognize what’s good science and what’s bad science, or forget bad science when it is outdated. But the fact is that our culture has indeed self-corrected. And despite the danger of the anti-vaccine movement, perhaps that is the most important (and, ironically, for a book with such a depressing title, optimistic) takeaway from Offit’s offering.

Edward Larkin is a medical student at the University of Pennsylvania. He studied for an MSc in International Health Policy at the LSE in 2011-12, where his dissertation investigated the relationship between uncertainty and technological change in health care. He graduated from the University of Notre Dame as valedictorian in 2011, studying biology and classics. Interested in the intersection of science, technology, and society, Edward has worked in wireless health care and at the UK Department of Health, as well as in basic science laboratories. Read more reviews by Edward.

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