

Why should we believe the scientists about climate change? Nobody — not even any individual scientist — understand all the details of the IPCC's recent 1552 page "summary" of climate science. So why buy into the idea that tiny amounts of gases from beneficial energy production can cause devastating global harm?

Part of the reason is that scientists have had a great track record. We trust our lives to supercomputer calculations about wing shapes and aerodynamics, despite the obvious fact that a hundred-ton hunk of metal obviously can't fly. We take medicines that rely on the absurd notion that illnesses are caused by tiny invisible creatures called germs. We convict criminals based on the bizarre notion that human beings are built from a chemical code recorded on tiny molecules scattered all through their bodies. I'm writing this on a laptop that relies on transistors which are based on quantum mechanics, a theory that even Einstein thought was too crazy to be true. Believing in science has turned out to be a very good bet.

Climate change isn't just some fad among scientists. The basic scientific insight is over a century old. Scientists in hundreds of universities and labs all over the world, have developed our current knowledge of climate change in thousands of studies. The evidence is truly massive — I recently strained my wrist when I carelessly picked up the first volume of the current IPCC report with one hand — at 1552 pages of tiny print, it's a bit on the heavy side. And it's only a *summary* of the evidence.

When you start looking a bit deeper, it's remarkable to see how hard scientists have worked to confirm individual pieces of the puzzle and to test their theories. There's lots of criticism of particular results and intense further research to investigate disputed questions. Another thing that's impressive about the IPCC report is that there's an elaborate system to provide the probability for each individual finding — some are considered "almost certain" while others are merely "very likely" or "likely"; the evidence on some is considered to provide "high confidence" while others are only "medium" or "low" confidence. These folks are really being careful to tell us what they know and what they don't know — what's the last time you saw a politician do that??

Sure there are handful of dissenters, just as there were a few scientists in the 1950s who insisted that cigarettes couldn't possibly cause cancer. But we'd be irrational — and I don't use that word lightly — to ignore what climate scientists are telling us.