

Twelve years ago I taught in Tennessee and spent summers in Wyoming. The sky was a dome of blue, in discernible contrast with Southern skies, where clouds obscured the blue ten months out of the year. Today, having lived in Wyoming for the past eight years, its sky sometimes reminds me of Tennessee's. Horizons are smeared with haze. Overhead, clouds tumble into one another. Twelve years from now, what changes will we see?

Human observation can be faulty. But visit the National Center for Atmospheric Research near Cheyenne, off I-80's Exit 257. While you can't sit at its supercomputer with a researcher who'll explain climate models that illustrate atmospheric changes past and present, NCAR's guides will direct you to websites that tell you more than you ever thought you wanted to know.

Another way to open your mind is to stop at a library. You'll be amazed at the books that describe the effects of climate change. True, on the same shelf you'll find books with titles like "Eco Scam" that decry global warming, claiming that thousands of researchers around the world are colluding in a gigantic hoax. Such books want to maintain the illusion that climate science is less settled than it is.

Paul Krugman, op-ed writer for the New York Times, recently produced a column on climate and ideology in which he takes on "the much-hyped war on coal." While getting serious about global warming means, above all, cutting back on—eventually eliminating—coal-fired power (which would hurt regions like Wyoming), he notes that, "What's rarely pointed out is how few such jobs still exist."

King Coal was once a major employer. More than 250,000 coal miners existed in America by the 1970s. But coal employment has steadily fallen, "not because output is down—it's up, substantially—but because most coal now comes from strip mines that require very few workers," writes Krugman. Today, he points out, coal mining accounts for only one-sixteenth of 1 percent of overall U.S. employment. "The real war on coal, or at least on coal workers, took place a generation ago, waged not by liberal environmentalists but by the coal industry itself. And coal workers lost."

The natural reaction is denial, angry denial, he observes. "Read or watch any extended debate over climate policy and you'll be struck by the venom, the sheer rage, of the denialists."

Yet environmentalism is not the enemy of economic growth, Krugman argues, citing recent studies, including one by the U.S. Chamber of Commerce that found only modest cost. He reminds us that, in the 1980s, conservatives claimed that any attempt to limit acid rain would have devastating economic effects; in reality, the cap-and-trade system for sulfur dioxide was "highly successful at minimal cost." Yes, protecting the environment imposes costs on some regions, but "not as much as you think." He mentions that the Northeastern states' cap-and-trade arrangement for carbon has lowered emissions "sharply" while their economies grew faster than in the rest of the country.

Three things we know about human-made global warming, he says. First, the consequences will be terrible if we don't act quickly to limit carbon emissions. Second, the required action shouldn't be hard to take: emission controls, done right, would probably slow economic growth, but not by much. Third, the politics of action are nonetheless very difficult.

Why is action on this issue so tricky? While he acknowledges that funding from fossil-fuel interests has played a crucial role, he believes the monetary stakes aren't nearly as big as we might think. What makes rational action on climate so hard is "a toxic mix of ideology and anti-intellectualism."

An interesting debate on science and anti-intellectualism happened on the most recent NPR "Science Friday" show. Ira Flatow's guest was Representative Rush Bolt of New Jersey's 12th District, a physicist. Very few members of congress are scientists, noted the guest, and those who are, contend with mind-sets of "Don't tell us what we don't want to now" and "Don't confuse us with the facts." Still, Dr. Bolt believes, thinking like a scientist helps the political process.

We must open ourselves to scientific thinking, he said, "not so we have a checklist of what is true and what is false" but so that we may learn to think critically. To start with an ideology and end on that same ideology signifies a closed mind.

NCAR's mission is to understand the behavior of the atmosphere and related systems. Books on the subject express the research in accessible language. I invite you take a look. Consider the evidence.