

Michael Crichton (1942-2008) was a wildly successful American author and moviemaker. His books reputedly sold over 200 million copies worldwide, and over a dozen were turned into movies—*Jurassic Park* being the most popular of them all. A graduate of Harvard medical school, he never actually practiced medicine but instead pursued a love of writing that he had held from an early age. Although Crichton wrote novels, his own reading habits prioritized nonfiction, as he would engage in extensive research before sitting down to write. Master of the techno-thriller, his plots delved into topics related to the physical sciences but also managed to raise questions about a variety of social science issues.

In 2004, Crichton published *State of Fear*, a novel that confronts environmentalism and, more specifically, mainstream assumptions about global warming. In an “Author’s Message” at the end of the book, Crichton spells out his own ideas on global warming, which include the following points: “Atmospheric carbon dioxide is increasing, and human activity is the probable cause.” “Nobody knows how much of the present warming trend might be a natural phenomenon.” “Nobody knows how much warming will occur in the next century.” Crichton suspects that “the principal human effect will come from land use (urban heating), and that the atmospheric component (greenhouse gases) will be minor.” He is “certain there is too much certainty in the world.”

Below are excerpts from two of Michael Crichton’s speeches where he shares more of his thoughts about global warming...

### **Michael Crichton on Global Warming**

The following is from “The Case for Skepticism on Global Warming,” a speech given by Michael Crichton on January 25, 2005, at the National Press Club in Washington, D.C.:

To be in Washington tonight reminds me that the only person to ever offer me a job in Washington was Daniel Patrick Moynihan. That was thirty years ago, and he was working for Nixon at the time. Moynihan was a hero of mine, the exemplar of an intellectual engaged in public policy. What I admired was that he confronted every issue according to the data and not a belief system. Moynihan could work for both Democratic and Republican presidents.

He took a lot of flak for his analyses but he was more often right than wrong.

Moynihan was a Democrat, and I’m a political agnostic. I was also raised in a scientific tradition that regarded politics as inferior: If you weren’t bright enough to do science, you could go into politics. I retain that prejudice today. I also come from an older and tougher tradition that regards science as the business of testing theories with measured data from the outside world. Untestable hypotheses are not science but rather something else.

We are going to talk about the environment, so I should tell you I am the child of a mother who 60 years ago insisted on organic food, recycling, and energy efficiency long before people had terms for those ideas. She drove refrigerator salesmen mad. And over the

years, I have recycled my trash, installed solar panels and low flow appliances, driven diesel cars, and used cloth diapers on my child—all approved ideas at the time.

I still believe that environmental awareness is desperately important. The environment is our shared life support system, it is what we pass on to the next generation, and how we act today has consequences—potentially serious consequences—for future generations...

In my view, our approach to global warming exemplifies everything that is wrong with our approach to the environment. We are basing our decisions on speculation, not evidence. Proponents are pressing their views with more PR than scientific data. Indeed, we have allowed the whole issue to be politicized—red vs. blue, Republican vs. Democrat. This is in my view absurd. Data aren't political. Data are data. Politics leads you in the direction of a belief. Data, if you follow them, lead you to truth.

When I was a student in the 1950s, like many kids I noticed that Africa seemed to fit nicely into South America. Were they once connected? I asked my teacher, who said that this apparent fit was just an accident, and the continents did not move. I had trouble with that, unaware that people had been having trouble with it ever since Francis Bacon noticed the same thing back in 1620. A German named Wegener had made a more modern case for it in 1912. But still, my teacher said no.

By the time I was in college ten years later, it was recognized that continents did indeed move, and had done so for most of Earth's history. Continental drift and plate tectonics were born. The teacher was wrong.

Now, jump ahead to the 1970s. Gerald Ford is president, Saigon falls, Hoffa disappears, and in climate science, evidence points to catastrophic cooling and a new ice age.

Such fears had been building for many years. In the first Earth Day in 1970, UC Davis's Kenneth Watt said, "If present trends continue, the world will be about four degrees colder in 1990, but eleven degrees colder by the year 2000. This is about twice what it would take to put us in an ice age." *International Wildlife* warned "a new ice age must now stand alongside nuclear war" as a threat to mankind. *Science Digest* said "we must prepare for the next ice age." *The Christian Science Monitor* noted that armadillos had moved out of Nebraska because it was too cold, glaciers had begun to advance, and growing seasons had shortened around the world. *Newsweek* reported "ominous signs" of a "fundamental change in the world's weather."

But in fact, every one of these statements was wrong. Fears of an ice age had vanished within five years, to be replaced by fears of global warming...

...in my experience, we all tend to put a lot of faith in science. We believe what we're told...

When I wrote *Jurassic Park*, I worried that people would reject the idea of creating a dinosaur as absurd. Nobody did, not even scientists. It was reported to me that a Harvard geneticist, one of the first to read the book, slammed it shut when he finished and

announced, "It can be done!" Which was missing the point. Soon after, a congressman announced he was introducing legislation to ban research leading to the creation of a dinosaur. I held my breath, but my hopes were dashed. Someone whispered in his ear that it couldn't be done.

But even so, the belief lingers. Reporters would ask me, "When you were doing research on *Jurassic Park*, did you visit real biotech labs?" No, I said, why would I? They didn't know how to make a dinosaur. And they don't.

So we all tend to give science credence, even when it is not warranted...

With this as a preparation, let's turn to the evidence...for global warming. As most of you have heard many times, the consensus of climate scientists believes in global warming. Historically, the claim of consensus has been the first refuge of scoundrels; it is a way to avoid debate by claiming that the matter is already settled. Whenever you hear the consensus of scientists agrees on something or other, reach for your wallet, because you're being had.

Let's be clear: the work of science has nothing whatever to do with consensus. Consensus is the business of politics. Science, on the contrary, requires only one investigator who happens to be right, which means that he or she has results that are verifiable by reference to the real world. In science, consensus is irrelevant. What is relevant is reproducible results. The greatest scientists in history are great precisely because they broke with the consensus.

And furthermore, the consensus of scientists has frequently been wrong. As they were wrong when they believed, earlier in my lifetime, that the continents did not move. So we must remember the immortal words of Mark Twain, who said, "Whenever you find yourself on the side of the majority, it is time to pause and reflect."

So let's look at global warming...

Now the first thing to say is that there is some uncertainty about how much warming has really occurred. The IPCC [the United Nations Intergovernmental Panel on Climate Change] says the 20th century temperature increase is between .4 and .8 degrees [Celsius]. The Goddard Institute says it is between .5 and .75 degrees [Celsius]. That's a fair degree of uncertainty about how much warming has already occurred.

...[The Goddard Institute] shows a warming of .4 degrees until 1940, which precedes major industrialization and so may or may not be a largely natural process. Then from 1940 to 1970, temperatures fell. That was the reason for the global cooling scare, and the fears that it was never going to get warm again. Since then, temperatures have gone up... They have risen in association with carbon dioxide levels. And the core of the claim of CO<sub>2</sub> driven warming is based on this thirty-five-year record.

...Now we must ask, if surface temperatures have gone up in the twentieth century, what has caused the rise? Most people have been taught that the increase is caused by carbon dioxide, but that is by no means clear.

Two factors that were previously not of concern have recently come to the renewed attention of scientists. The first is the sun. In the past it was imagined that the effect of the sun was fairly constant and therefore any rise in temperature must be caused by some other factor. But it is now clear from work of scientists at the Max Planck Institute in Germany that the sun is not constant, and is right now at a 1,000-year maximum. The data comes from sunspots.

According to Solanki and his associates, ...solar radiation and surface temperature are correlated until recent times. Solanki says that the sun is insufficient to explain the current temperatures, and therefore another factor is also at work, presumably greenhouse gases. But the question is whether the sun accounts for a significant part of twentieth-century warming. Nobody is sure. But it is likely to be some amount greater than was previously thought.

...Another factor that could change the record is heat from cities. This is called the urban heat bias, and as with solar effects, scientists tended to think the effect, while real, was relatively minor. That is why the IPCC allowed only six-hundredths of a degree for urban heating. But cities are hot: the correction is likely to be much greater. We now understand that many cities are 7 or 8 degrees warmer than the surrounding countryside.

Some studies have suggested that the proper adjustment to the record needs to be four or five times greater than the IPCC allowance.

Now what does this mean to our record? Well remember, the total warming in the 20th century is six-tenths of a degree.

If some of this is from land use and urban heating (and one studies suggests it is .35 C for the century), and some is solar heating (.25 C for the century), then the amount attributable to carbon dioxide becomes less. And let me repeat: nobody knows how much is attributable to carbon dioxide right now.

But if carbon dioxide is not the major factor, it may not make a lot of sense to try and limit it. There are many reasons to reduce our dependence on fossil fuels, and I support such a reduction. But global warming may not be a good or a primary reason.

So this is very important stuff. The uncertainties are great...

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The following is from "Aliens Cause Global Warming," a speech given by Michael Crichton on January 17, 2003, at the California Institute of Technology in Pasadena, CA.:

And so, in this elastic anything-goes world where science—or non-science—is the handmaiden of questionable public policy, we arrive at last at global warming. It is not my purpose here to rehash the details of this most magnificent of the demons haunting the world. I would just remind you of the now-familiar pattern by which these things are established. Evidentiary uncertainties are glossed over in the unseemly rush for an overarching policy, and for grants to support the policy by delivering findings that are desired by the patron. Next, the isolation of those scientists who won't get with the program, and the characterization of those scientists as outsiders and "skeptics" in quotation marks—suspect individuals with suspect motives, industry flunkies, reactionaries, or simply anti-environmental nutcases. In short order, debate ends, even though prominent scientists are uncomfortable about how things are being done.

When did "skeptic" become a dirty word in science? When did a "skeptic" require quotation marks around it?

To an outsider, the most significant innovation in the global warming controversy is the overt reliance that is being placed on models. ... [It used to be that] computer models were invoked to add weight to a conclusion: "These results are derived with the help of a computer model." But now large-scale computer models are seen as generating data in themselves. No longer are models judged by how well they reproduce data from the real world—increasingly, models provide the data. As if they were themselves a reality. And indeed they are, when we are projecting forward. There can be no observational data about the year 2100. There are only model runs.

This fascination with computer models is something I understand very well. Richard Feynmann [a Nobel Prize winner in physics] called it a disease. I fear he is right. Because only if you spend a lot of time looking at a computer screen can you arrive at the complex point where the global warming debate now stands.

Nobody believes a weather prediction twelve hours ahead. Now we're asked to believe a prediction that goes out 100 years into the future? And make financial investments based on that prediction? Has everybody lost their minds?

Stepping back, I have to say the arrogance of the modelmakers is breathtaking. There have been, in every century, scientists who say they know it all. Since climate may be a chaotic system—no one is sure—these predictions are inherently doubtful, to be polite. But more to the point, even if the models get the science spot-on, they can never get the sociology. To predict anything about the world a hundred years from now is simply absurd.

Look: If I was selling stock in a company that I told you would be profitable in 2100, would you buy it? Or would you think the idea was so crazy that it must be a scam?

Let's think back to people in 1900 in, say, New York. If they worried about people in 2000, what would they worry about? Probably: Where would people get enough horses? And what would they do about all the horseshit? Horse pollution was bad in 1900, think how much worse it would be a century later, with so many more people riding horses?

But of course, within a few years, nobody rode horses except for sport. And in 2000, France was getting 80% of its power from an energy source [nuclear] that was unknown in 1900. Germany, Switzerland, Belgium and Japan were getting more than 30% from this source, unknown in 1900. Remember, people in 1900 didn't know what an atom was. They didn't know its structure. They also didn't know what a radio was, or an airport, or a movie, or a television, or a computer, or a cell phone, or a jet, an antibiotic, a rocket, a satellite, an MRI, ICU, IUD, IBM, IRA, ERA, EEG, EPA, IRS, DOD, PCP, HTML, internet, interferon, instant replay, remote sensing, remote control, speed dialing, gene therapy, gene splicing, genes, spot welding, heat-seeking, bipolar, Prozac, leotards, lap dancing, email, tape recorder, CDs, airbags, plastic explosive, plastic, robots, cars, liposuction, transduction, super-conduction, dish antennas, step aerobics, smoothies, twelve-step, ultrasound, nylon, rayon, Teflon, fiber optics, carpal tunnel, laser surgery, laparoscopy, corneal transplant, kidney transplant, AIDS... None of this would have meant anything to a person in the year 1900. They wouldn't know what you are talking about.

Now. You tell me you can predict the world of 2100. Tell me it's even worth thinking about. Our models just carry the present into the future. They're bound to be wrong. Everybody who gives a moment's thought knows it...