The Producer's Story: A Taxonomy of Skepticism

by David Sington

Filmmaker David Sington has been making films about the Earth sciences since 1991, but it was a film he made 10 years later called "The Day the Oceans Boiled" that really opened his eyes to the threat from global warming. "Dimming the Sun" is the second film he's done on the subject, and he's working on a third. Here, Sington offers his opinion as to why many people in the U.S., more so than in his native Europe, remain skeptical about how much global warming is due to human activities.

David Sington believes global warming will soon be painfully obvious to everyone—and ignoring it will no longer be an option.

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Like most films that we at DOX Productions make for NOVA, "Dimming the Sun" is a coproduction between a U.K. broadcaster and WGBH, Boston. So we are well used to creating two slightly different versions, one for the British audience and one for the American. Often the difference is simply one of language, those little Britishisms and Americanisms that cause so much innocent amusement (you say "tomato", we say "genetically modified organism"). But "Dimming the Sun" posed an interesting and unusual challenge: how to deal with the fact that British and American viewers are, so to speak, in a different place when it comes to global warming.

In general, Americans seem rather more skeptical about the idea that human activity is changing the climate than we British are. This impression, which led us to adopt a subtly different approach in the two versions, got me thinking about the whole question of why so many people still reject an idea that must be one of the most intensively studied and widely accepted in modern science, and why Americans seem more resistant to it than Europeans are.

AN AVERAGE VIEW

Climate change skepticism, it seems to me, has a number of different sources. Firstly, there are what one might call arguments from common sense. It seems obvious that if meteorologists have trouble forecasting the weather three weeks from now, how on Earth can they claim to predict it three decades hence?

The answer to this, of course, is that scientists are forecasting not weather but average weather (i.e., climate). It is much easier to predict averages than individual values. The casino owners have no more knowledge than the gambler where the ball will fall on any particular turn of the wheel. But the owners know the averages are in their favor and can predict with mathematical precision the monthly take from each roulette table.

In fact, only three factors determine the planet's energy balance: the sun's output, the Earth's reflectivity, or albedo, and the thermal properties of the atmosphere, which are affected by the level of certain trace gases like carbon dioxide and water vapor. Reduced to its essentials, the greenhouse effect is a problem in 19th-century classical physics, and the basic theory was worked out with pencil and paper in the 1890s. To say that increasing CO_2 levels leads to more heat trapped in the atmosphere is really no more scientifically controversial than saying you'll feel warmer if you put on a sweater.

The difficulty arises when you try to work out what this extra heat energy will do. Will it lead to increased rainfall, or more cloud, or higher winds? It will raise temperatures, but by how much? This is where the complex computer models and the (legitimate) scientific arguments come in—accompanied by the occasional science filmmaker!

We've long known that upping carbon dioxide levels in the atmosphere causes it to heat up. The hard part comes in knowing just what effects this extra heat will have, Sington says.

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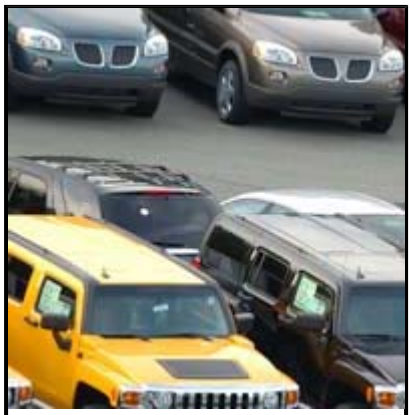
FORCE OF NATURE

A second kind of skepticism arises, I believe, from a deep-seated psychological attitude towards the natural world. For most of human history, our ancestors knew themselves to be highly vulnerable to natural disasters and setbacks—floods, famines, plagues of locusts, and the like. The sense that Nature is big and powerful, and that we are puny by comparison, is rooted deep in the human psyche. So it is genuinely difficult for most people to believe that something they do as individuals—driving their SUV or turning up the air con—could possibly be having an effect on something as vast as the world's climate.

> Global warming is nothing less than a fact, and it has to be faced.



Yet this attitude, that humanity is dwarfed by its environment, is several thousand years out of date. Ever since the development of agriculture, we have been progressively adapting the global environment to our own ends, to the point now where it is estimated that human beings co-opt between 20 and 40 percent of the entire planet's net primary productivity.

For example, according to some estimates, industry today fixes as much nitrogen as the planet's bacteria. We now dominate the nitrogen cycle, a fundamental process vital to life. Even basic geological processes, such as the transport of sediments from the continents to the ocean floor, are now effectively under human control. Humanity itself is now a force of Nature, and a very powerful one. We need to shift our mindset to accommodate this profound fact.

"Global warming is certainly inconvenient," Sington says, when it comes to continuing to pursue our gas-guzzling and otherwise highly polluting lifestyles.

THE AMERICAN WAY

There is a third reason why people reject the idea of man-made climate change. It is my observation that on the whole people tend to believe what is convenient to them. Faced with a choice between an awkward fact and a comforting fiction, most people will take the fiction any day. And global warming is certainly inconvenient. Just when we have finally freed ourselves from the tedium of tilling the earth and gotten nice and comfortable with a big TV, central heating, cheap flights to exotic destinations, and an armor-plated all-terrain vehicle for nipping down to the mall, along come some bloody scientists to tell us that we can't go on as we are and as we like doing.

I have a sneaking sympathy for those conservatives who seem to regard the greenhouse effect as an unwarranted interference with the workings of the free-market economy. But as a bit of a political conservative myself, I have always thought that the guiding spirit of conservatism was the determination to see the world as it really is, to cast away the rose-tinted spectacles. Global warming is nothing less than a fact, and it has to be faced.

In my experience, these skeptics of the third kind are much more prevalent in the USA than in Europe. I think this may be partly to do with a particularly American attitude to money. American rhetoric tends to present prosperity as the natural consequence of political freedom. Like democracy, it becomes a moral good in its own right. Anyone who seems to question the wisdom of unconstrained economic growth risks appearing un-American, if not downright immoral.

TAKING THE LEAD

But in my view, tackling global warming is extremely unlikely to damage the American economy. What's required is another industrial revolution. America is rather good at these. Britain led the first (coal and steam), but America has pioneered the rest (the internal combustion engine, telecommunications, computers). Each one only adds to our prosperity, and it will be the same once again.

But there is an important difference from previous industrial revolutions. This one requires political leadership; the market on its own won't do it. As an Englishman I am often impatient with the notion of America as "the indispensable nation," but on this occasion I think that it is. To combat global warming, the world desperately needs U.S. leadership.

I am optimistic enough to believe that we won't have to wait much longer. The pace of global warming is now quickening to the point where it will soon be obvious to everyone. When you can discuss the question sitting at a pavement café in London in November in your shirtsleeves, you just know something is up, and all skepticism becomes moot. ■

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