An account of the attack on science in the US

Joe Kay 9 February 2006

The Republican War on Science by Chris Mooney, Basic Books, New York, 2005, 351 pp., US\$24.95, CAN\$34.95

There have been a number of books written in the past few years that deal with different aspects of the attack on science. Some of these are useful, bringing together certain material about the attempts by corporations and political organizations to undermine scientific conclusions. But most fail to make a serious analysis of what lies behind the attack on science.

Chris Mooney's book, *The Republican War on Science*, falls clearly within this category. Mooney is a journalist who has written on scientific issues for publications such as *Mother Jones*, *American Prospect* and the *Washington Post*.

The fundamental flaw of his book is indicated by the title. Mooney sees the war on science, in the end, as simply the product of bad politicians—Republicans—who have to be reined in—by the Democrats. Such an approach, almost by definition, skirts over the more profound social and historical roots of the attack on science, as well as the Democratic Party's own role in facilitating it.

The war on science encompasses different fronts that, Mooney argues, can be placed in two basic categories: the attempt by giant corporations to mold science to suit their interests, or attack it when it does not; and the drive of religious fundamentalists to undermine science on such questions as stem cell research, evolution and contraception. These two strands, he writes, have found their most concentrated political expression in the Republican Party.

Within the first category, Mooney cites several different components, among which are: the oil industry's attack on global warming science; the attempt by certain sections of the food industry to undermine the science of obesity; and the attempt to gut the Endangered Species Act. It suffices to examine the question of global warming to get a sense of the issues involved.

Perhaps most valuable in Mooney's book is his explanation of common techniques used to undercut scientific conclusions. In the case of global warming, one of the most important is the artificial creation of a supposed scientific dispute over findings, where none actually exists. The overwhelming consensus of climatologists and others studying the environment is that global warming is real, that it is caused at least in part by human activity, and that it will have devastating consequences if not halted.

The energy industry has sponsored think tanks and employed global warming "skeptics" whose primary task it to "manufacture uncertainty." The role of these "skeptics" is entirely contrary to the traditional and quite important practice of scientific criticism and questioning.

Their aim is not the discovery of truths which may be contrary to established conclusions, but rather the obscuring of the truth at the behest of and in the service of private corporations. In this they take their cue from the tobacco industry, whose decades-long campaign to cast doubt on the link between smoking and cancer became the model for all future endeavors.

Mooney cites the infamous internal memo from tobacco company Brown & Williamson, written around 1969, which declared, "Doubt is our product, since it is the best means of competing with the 'body of fact' that exists in the mind of the general public. It is also the means of establishing a controversy."

The most consistent opponent of global warming science has been ExxonMobil, the largest private energy company in the world. In recent months Exxon has been pulling in record profits, largely as a consequence of a sharp increase in energy costs, particularly after Hurricane Katrina disrupted refineries in the Gulf of Mexico. Exxon has a great interest in preventing regulation of oil production. Since the principal cause of global warming is increased carbon dioxide emissions, produced largely through the burning of fossil fuels, including gasoline, Exxon has a vested interest in undermining the scientific consensus on global warming.

"By 2002," Mooney notes, "Exxon Mobil was donating over a million dollars annually to policy groups and think tanks involved in battling against the scientific mainstream on global warming... In 1998, for instance, the *New York Times* exposed an internal American Petroleum Institute memo outlining a strategy to invest millions to 'maximize the impact of scientific views consistent with ours with Congress, the media, and other key audiences.' 'Victory will be achieved,' the document stated, when 'recognition of uncertainties becomes part of the 'conventional wisdom.'"

The energy industry has spent millions on politicians who will champion its cause, including Oklahoma Senator James Inhofe, who infamously declared that global warming might be "the greatest hoax ever perpetrated on the American people." These politicians have taken up the cause of "sound science," a term they employ to present themselves as defenders of scientific objectivity, when their main aim is to discredit sound scientific conclusions based on a massive amount of evidence.

The material Mooney presents is valuable, if not particularly new or original. However, Mooney ends where it is really necessary to begin. One gets the impression that there is a certain amount of journalistic laziness involved here.

For example, Mooney writes extensively about the statements by Inhofe and his relationship to oil companies—a topic on which the author has written before—but he has relatively little to say about the deep and multifaceted connections between the energy industry and the Bush administration itself, even though these are more significant and relevant to the topic at hand.

There is, however, more than laziness in Mooney's failure to go beyond a largely superficial account of the attack on global warming science. Mooney avoids raising questions that lead beyond the narrow confines and particular issues discussed in the book, and point to political conclusions which he does not want to draw.

Vice President Dick Cheney, the former head of Halliburton, is not even mentioned, nor is Cheney's 2001 energy task force, in which energy companies and administration officials met to draw up administration policy. A topic of discussion at these meetings was reportedly the oil fields of Iraq. However, the war in Iraq is not so much as broached in the entire book.

The extraordinary influence of a handful of energy companies over US government policy is examined with very little depth and almost no

analysis. What accounts for this influence? Does it have something to do with the extremely critical role that oil plays in the world economy, giving countries that dominate the global oil industry leverage against their competitors? Is there no connection between the refusal of the American government to do anything about the threat of global warming and the drive by the American military to secure US domination over the main centers of oil production?

It can hardly be a coincidence that Mooney fails to mention the Iraq war, in which oil figures so centrally, and that he is also a partisan of the Democratic Party, which supports the war.

Throughout the book, Mooney fails to discuss the record of the Democratic Party, which likes to position itself as the party of environmentalism but offers no real solutions to the crisis of global warming or any other environmental problem. The much-trumpeted Kyoto protocol, rejected by the Bush administration in one of its first acts upon coming into office, is, in fact, an extremely limited measure, mired in the conflicting interests of the different nation states that drew it up. Moreover, the Clinton administration signed the bill with no real intention of waging a campaign for its approval by the Republican-controlled Congress.

In general, the Democrats have used the environmental issue as a means of generating a certain degree of support from those who are justifiably concerned about environmental questions. The threat of global warming is enormous, and scientists around the world have warned of potentially catastrophic consequences, including the proliferation of diseases and the disruption of agricultural production, if it is not contained within the next decade. The entire climate system will be thrown out of balance, with the recent sharp increase in the intensity of Atlantic hurricanes only one example of what can be expected.

However, the Democrats have never proposed any serious measures to counter these threats. To address the problem requires a coordinated, rational and international strategy to shift the world economy to more efficient and less damaging sources of energy.

Above all, it would require an end to conditions in which the entire energy sector is dominated by a handful of giant companies, whose decisions are based on private profit. It further raises the need to transcend the system of competing nation states, whose interests, inextricably bound up with the profit interests of the corporations for which they speak, prevent even the most minimal steps toward a solution to the problem of global warming.

The Democrats offer no solution to environmental problems for the same reason that they offer no solution to war, the attack on democratic rights or growing social inequality in the US and internationally: they are, no less than the Republicans, defenders of the economic system that is ultimately responsible.

The same narrowness of scope is evident in Mooney's treatment of Christian fundamentalism, which today exercises a degree of power over the American political establishment that far exceeds its level of support within the population as a whole.

The attack on the science of evolution has intensified in recent years. The first court case challenging the teaching of "intelligent design," the latest manifestation of the creationist attack on evolution, was decided only late last year. While the judge ruled against those who wanted intelligent design taught in public school science classrooms, this by no means marks an end to the assault on evolution.

The Kansas school board voted in November to once again change the state's science standards to favor creationist arguments. Several states have adopted or are considering similar measures. Last summer President Bush declared that intelligent design should be taught alongside evolution in the public schools, an open flouting of the constitutional separation of church and state.

Mooney brings together some of the history of the intelligent design

(ID) movement, tracing it back to its earlier manifestation as "scientific creationism." Scientific creationism sought to unearth evidence for a literal interpretation of the bible—geological evidence of a great flood, for example. After the Supreme Court ruled that this mockery of the scientific method could not be taught in the public schools because of its inherently religious character, supporters of creationism turned to intelligent design, which does not seek to argue for biblical literalism. Rather, we are told, life is too complex to have evolved naturally. It must be the work of a designer.

Like global warming deniers, proponents of intelligent design focus their energies on attempting to cast doubt on established science—in this case evolution, with which no competent biologist disagrees in its fundamentals. "ID hawkers," Mooney notes, "have crisscrossed the United States arguing that public schools should 'teach the controversy' over evolution—a controversy they themselves have manufactured." Institutions such as the Discovery Institute spend millions of dollars promoting their views.

Mooney points out that the aims of the ID advocates are far-reaching, citing a 1999 internal Discovery Institute memo known as the "Wedge Document," which states that the goal of the movement is "to replace materialistic explanations with the theistic understanding that nature and human beings are created by God."

In other words, they would have religion taught in the public schools. "Though Discovery claims to support science," Mooney writes, "the Wedge Document makes it clear that the group actually hopes to radically redefine the very nature of scientific inquiry, smuggling assumptions about the supernatural into the very fabric of research and turning science into something much closer to pre-Enlightenment philosophy."

Mooney makes no serious attempt at an analysis of the roots of the attack on evolution or the broader threat represented by Christian fundamentalism. The Republican Party, according to Mooney, has facilitated both the corporate and religious attack on science. However, he sees no underlying connection between the two. Indeed, he insists that the Wedge Document "outlines an agenda to undercut science not in the service of corporate goals, but rather to further those based on religion."

While this may be true in the sense that there are no specific corporate interests behind the ID movement, the document that Mooney cites clearly outlines a program for the elimination of the welfare state, which it associates with Marx and the "cultural legacies" of materialism and Darwinism. This is an agenda promoted by the most right-wing sections of the corporate and political establishment.

There are deeper roots to the attack on science that Mooney misses entirely. The rise of modern science during the Renaissance and Enlightenment period was intimately bound up with the rise of the bourgeoisie as a dominant social class in Europe. In its struggle with the old feudal classes, which were generally allied with the Catholic Church and its promotion of religious dogma, the rising capitalist class took up the banner of rationality, knowledge and science.

The development of science was necessary for the development of the means of production, including the introduction of new technologies and new forms of communication and transportation. These advances strengthened the hand of the bourgeoisie and increased its economic power relative to the landed nobility. The bourgeoisie was at that time a progressive class, in the sense that its own interests as a class corresponded with the development of the productive forces.

What has happened since that time, so that the same backward—as Mooney notes, pre-Enlightenment—conceptions that were once the purview of the feudal aristocracy are now championed by the president of the United States, the head of state at the center of world capitalism? The answer lies in the changing relationship of the bourgeoisie to society as a whole: from a progressive and revolutionary class, it has become the principal force of reaction—the main barrier to the further development of

the productive forces and defender of a historically outmoded socioeconomic system.

Of course, this is not a new situation. The historical bankruptcy of capitalism has been long in the making. Backwardness is hardly a monopoly of the US government. One need only recall the barbarism of the fascist movements of the last century.

At the same time, it is not accidental that the anti-rationalist conceptions that animated these movements share common features with those that form the bedrock of the Bush administration. The attack on science and rationality is characteristic of a society in mortal crisis.

This does not negate that fact that over the past several decades there have been immense technological advances, centered on the development of computer technology. There are certainly sections of the ruling class in the United States that are concerned about the consequences that the antiscientific conceptions promoted by Christian fundamentalists and their allies have for the skill level of American workers and the general ability of American firms to compete on the world market. There is also concern that the major scientific advances, such as those associated with stem cell research, will be made in countries that compete with US capitalism.

However, the general relationship of the American ruling class to the development of the productive forces is an antagonistic one. The growth of these forces brings with it not a strengthening of its position, but rather an intensification of the contradictions of American and world capitalism—above all the contradiction between globalized production and the nation-state system, and between the social character of production and the private ownership of the means of production.

At the same time, the expansion of scientific knowledge to broad sections of the population can only serve to intensify opposition to imperialism's promotion of militarism and social reaction. If during the period of the great bourgeois revolutions reason was a tool to be used against feudalism, it now facilitates the struggle against capitalism.

In a fundamental sense, the American ruling class is in conflict with truth. A figure such as Benjamin Franklin—who engaged not only in revolutionary politics, but also groundbreaking scientific research—represented that which was progressive in the emerging American bourgeoisie. Today, the American ruling class is aptly represented by a George Bush, who combines social reaction with intellectual poverty and cultural backwardness.

The inability of Mooney and similar writers to examine the deeper historical issues behind the attack on science reflects a definite political outlook. Ultimately, Mooney's hope is that all the problems he outlines can be solved through support for the Democratic Party or even more moderate Republicans. He concludes his book by declaring that "we face a political problem, one that requires explicitly political solutions," and calls for the American people to vote "today's Right" out of office.

However, just as the Democratic Party has facilitated the attack on social programs and the escalation of American militarism, so too it has proved incapable of mounting any serious opposition to the attack on science. Instead, it has continuously sought to adapt itself to the Republican Party on economic, social and so-called "moral" issues. It has done so because it unreservedly defends the interests of American capitalism.

It is certainly true that we face a political problem that requires political solutions. However, the problem is the not that the Republican Party is in office rather than the Democrats. The basic problem confronting the working class not only in the US but internationally is the need for a party that bases itself on opposition to the capitalist system. In the end, the defense of science also depends on this.



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