

# Left, Right, and Science

*Liberals and conservatives alike wrap groupthink in the cloak of science whenever convenient. The results are seldom good.*

BY CHRISTOPHER CLAUSEN

WHEN BARACK OBAMA PROMISED IN HIS 2009 inaugural address that “we will restore science to its rightful place,” he invoked not so much a debate as a set of widely shared assumptions. According to conventional wisdom, liberals and Democrats are the party of reason and science; conservatives and Republicans are the party of religion and patriotic symbols. As Drew Westen, a psychotherapist, recently expressed it in a *New York Times* op-ed, “Whereas Democrats have carried forward the belief in the role of science and knowledge in improving our lives, Republicans have moved in increasingly anti-intellectual directions.” This way of stating the division, needless to say, is itself liberal and Democratic. While many conservatives (with notable exceptions) agree that religion is an important source of beliefs and public policies, probably few consider themselves anti-intellectual. Yet the impression that the physical and social sciences are to liberalism what religion is to conservatism goes mostly unquestioned on either side. Conservatives complain about a liberal war on Christian values and faith in general, Democrats about a Republican war on science.

Whether or not science inherently conduces toward liberalism, there is little question that American scientists tend to be liberals. In 2009 the Pew Research Center, in collaboration with the American

Association for the Advancement of Science (AAAS), released an exhaustive survey of attitudes toward science among scientists and the general public. About half the scientists were in biology or medicine; the rest were divided among other “hard” sciences. Fifty-five percent of the scientists identified themselves as Democrats, a level 20 points above that of the nonscientists. (When “leaners” are included, 81 percent of the scientists fall into the Democratic camp.) More than half of the scientists described themselves as liberals, while only a fifth of the general public did. Only nine percent of the scientists said they were conservatives, while 37 percent of the public did. Do scientific habits of evaluating evidence and looking at the world lead their practitioners to become liberals, or are scientists simply following the dominant influences in environments such as universities? After all, professors of English are also leftward in their political sympathies, though hardly anyone would claim that the study of language and literature is responsible.

If God is not a Republican, however, as a familiar bumper sticker proclaims, neither is nature a Democrat. Consider evolution. One of the anomalies of contemporary thought is that acceptance of Darwin’s theory, which posits a brutally competitive, amoral, and goalless process of natural selection, has come to be identified with liberal political beliefs, while traditional Christianity, with its New Testament teachings about brotherhood, serving the poor, and turning

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Evangelical preacher T.T. Martin opened this storefront near the site of the Scopes trial in Dayton, Tennessee, in 1925. A national figure, Martin argued that the teaching of evolution in public schools would deprive children of their faith, thus violating their religious liberty.

the other cheek, is equated with conservatism. The emphasis on cooperative elements in social development by many evolutionary biologists today is partly an attempt to make the theory more compatible with aspirations to a more harmonious world. When William Jennings Bryan helped prosecute John Scopes in the famous 1925 Tennessee case that defined the battle lines between fundamentalists and evolutionists, part of his motivation was a concern about the brutalizing effects of Darwinian thinking on social theory. Bryan, who was the Democratic candidate for president in 1896, 1900, and 1908, had been perhaps the farthest-left presidential nominee in U.S. history at a time when social Darwinism—the application of an exaggerated version of natural selection to economic and social relations—was an influential force in American life and right-wing thought. If the South had not been simultaneously more religious and more conservative (for unrelated reasons) than the rest of the country when these controversies came to a head, Christian belief might easily have been more often identified with liberal politics and evolution with the Right.

Social Darwinism was not the only politically charged outgrowth of evolutionary theory. There was

also eugenics, the movement to breed a healthier, more genetically fit population, which Bryan found particularly odious. Because of its later identification with Nazi racial theories, the eugenics movement has come to be thought of as right-wing, but early in the 20th century it was championed by progressive thinkers and political figures. The Fabian socialist George Bernard Shaw made it the theme of *Man and Superman* (1903), one of his most popular plays. In the United States, Margaret Sanger, the leading early advocate of birth control and founder of what later became Planned Parenthood, was a close ally of the eugenics movement on some issues (though not all).

By the mid-1930s, 35 states had enacted laws “to compel the sexual segregation and sterilization of certain persons viewed as eugenically unfit, particularly the mentally ill and retarded, habitual criminals, and epileptics,” Edward J. Larson writes in *Summer for the Gods* (1998), a history of the Scopes trial. “Typically,” he says, they justified their actions “on the basis of evolutionary biology and genetics.” In the celebrated 1927 case *Buck v. Bell*, the Supreme Court upheld the constitutionality of such laws, with Justice Oliver Wendell Holmes writing a majority opinion that

culminated in the lapidary announcement: “Three generations of imbeciles are enough.” The only justice who dissented, Pierce Butler, was a politically conservative Roman Catholic whom Holmes criticized for letting religious dogma get in the way of scientific and legal judgment.

Though long since established as the bedrock of modern biology, evolution remains controversial in American popular opinion, especially in public education. Many efforts to reconcile Christianity and Darwin have been made since the 19th century, but the results are inevitably decaffeinated versions of both that many Christians and most scientists find unsatisfactory, whatever Spencer Tracy may have thought in *Inherit the Wind*. In the Pew survey, only 33 percent of the more than 2,500 AAAS members polled stated that they believed in God, as against 83 percent of the general public in the same survey. (Oddly enough, the younger the scientist, the more likely he or she was to acknowledge a belief in God. This result could herald a change in attitudes or might simply indicate that, in common with recent popular usage, young scientists attach a vaguer meaning to the word than their elders do.)

Since the founding of the American Association of University Professors in 1915, the doctrine of academic freedom as generally understood has held that properly certified teachers should be free to speak and write according to their convictions. The Scopes trial began as a contest not just over the rights or wrongs of Darwinism but whether majority rule should determine what a public school teacher might or might not teach on a sensitive subject. According to Scopes’s liberal defenders, by banning evolution from the classroom the state of Tennessee had put itself in the position of the Catholic Church with Galileo. More than that, it was practicing thought control by overriding individual conscience, the very organ that both Protestantism and the First Amendment to the Constitution supposedly held sacred. The American Civil Liberties Union, which had recruited Scopes to test the Tennessee law, lost the battle, but in time won the war absolutely. In *Epperson v. Arkansas* (1968), the Supreme Court threw out the last state laws banning the teaching of human evolution, on the grounds that such requirements, however framed, expressed an

unconstitutional religious purpose.

Today the shoe is on the other foot. Following *Epperson*, some states enacted laws mandating equal time for creationism whenever evolution was taught. The Supreme Court struck these laws down as well in *Edwards v. Aguillard* (1987). Public school teachers are now forbidden to discuss “creation science,” “intelligent design,” or related doctrines as alternatives to Darwin’s theory. How many of Scopes’s supporters in 1925 would be happy with this outcome is impossible to say. The justification usually given by scientists and others who defend what looks like a double standard is that creationism in whatever guise is religion, not science. No question, but the corollary that all mention of such a widely shared view should therefore be excluded is less obvious. It can hardly be considered either socially marginal or irrelevant to the subject of human origins. According to the findings of a 2010 Gallup poll, about 40 percent of Americans believe in “strict creationism”—that God created humans in their present form—with another 38 percent accepting evolution with divine guidance. Only 16 percent accept evolution with no divine participation. These numbers have changed only slightly since Gallup began asking about the subject in 1982.

Darwin’s theory of evolution through natural selection, as modified by later discoveries in genetics, is one of the greatest intellectual achievements of all time. None of its competitors has anything like its sophistication or credibility. Why go to so much trouble to forbid any mention of them? Doing so has apparently not made them less popular. The principle that everyone is entitled to his or her say on disputed subjects is so deeply ingrained in the American psyche that advocates of banning religious points of view wherever possible are at a crippling disadvantage with public opinion—perhaps one more reason scientists often feel beleaguered despite their prestige and perquisites.

Today, political controversies involving science are aggravated by the discipline’s tendency, as it became an important element in popular culture, to accrete moralistic elements that are not really scientific at all. A venerable example that predates Darwin is the common belief that evolution means progress from “lower” to “higher” forms of life, probably with supernatural guidance, rather than simply an unending process of

adaptation to changing environments that could lead in many different directions. Another moral concept that crept into supposedly scientific discussions of ecology is the notion of a correct balance of nature that human action is capable of disrupting. Although it has been critiqued by ecologist Daniel Botkin and other scientists, this imaginary construct has become one of the fundamental, if not always conscious, premises of environmentalism, a movement with elements of both science and religion. On the antiabortion right, activists in a number of states have introduced contentious legislation to recognize that human life or personhood begins at conception, and therefore that even early-term abortion is murder. (A referendum on this issue failed in Mississippi last November.) While the assertion is often stated in quasi-scientific terms, neither it nor the counterclaim that life begins at birth has anything to do with science. Nobody disputes that both sperm and ovum are as alive and human as their hosts. The moral question of the stage at which a fetus becomes entitled to the legal protections accorded human beings has no possible scientific answer.

These examples betray a common instinct to use science as an assault weapon in political combat even when it really has little or nothing to say. In the fever swamps of the academic Left, some postmodernists attack science as just one more expression of power, but the Pew survey confirms that most Americans of all political ideologies respect and admire its accomplishments. Science in the abstract has become so powerful that conservatives as well as liberals claim its authority when it seems to support their positions, as in the case of social science research showing the benefits to children of living with two married parents. Conservatives also tend to be more comfortable than liberals with modern genetic science when its findings bear upon such matters as social behavior, abilities, and differences between the sexes.

More often, though, liberals are the ones who cite “the science” about a particular subject as indisputable support for policy decisions, treating Big Science (the interlocking apparatus of national academies, commissions, foundations, universities, and professional societies) as the ultimate referee rather than as a team of specialized players. When the Obama administration followed the U.S. Institute of Medicine’s

recommendation that all health insurance plans be required to cover birth control without charge, defenders hailed the decision as a victory for science over politics. “They asked for the guidance on what the evidence and science say,” declared an institute spokeswoman, “so that’s what we’ve given.” A few months later, a recommendation by the California Medical Association that marijuana be legalized was greeted by longtime supporters of pot as a scientific refutation of the status quo.

What is the actual role of science in policy disagreements such as these? In the birth control case, the recommendations were intended to reduce unwanted pregnancies and, by mandating screening as well, certain forms of disease. Few people would doubt the new policy’s potential effectiveness in achieving at least some of these goals. But the controversy over birth control in health insurance has little to do with scientific questions. It involves differing convictions about religious freedom, sexual behavior, and government control over personal or medical decisions. Similarly, when Secretary of Health and Human Services Kathleen Sebelius overruled a Food and Drug Administration recommendation last December that the “morning-after” pill be made available without prescription to girls younger than 17, both she and the FDA couched their disagreement in scientific terms, though the issues were really moral and political. Scientists are no more qualified to pronounce on these matters than anyone else, and to believe otherwise is to confuse different realms of thought.

The marijuana issue is likewise much more about values than about facts that science can determine. In a 2010 referendum, California voters defeated a proposal to legalize marijuana in the state. (If it had gone the other way, its validity would have been at best debatable, since drug policy falls under federal jurisdiction.) Less than a year later, the California Medical Association urged that the drug be legalized and regulated in unspecified ways. Once again, defenders claimed to be representing science against superstition. “This was a carefully considered, deliberative decision made exclusively on medical and scientific grounds,” Dr. James T. Hay, president-elect of the group, announced. “Drug use is a health issue, and for too long we have let law enforcement and

federal bureaucrats decide policy,” added Bill Piper of the Drug Policy Alliance, an advocacy organization. “CMA is saying let’s treat medical marijuana as a health issue.” Legalizing marijuana, however, would affect far more users than the patients who constitute a sympathetic but minute proportion of those who consume the drug.

The point is not that science is irrelevant to questions of public policy. Where a consensus exists about ends such as eradicating polio or putting a man on the moon, scientific findings are indispensable for reaching them. Properly designed studies can produce valuable information about the physical and mental effects of marijuana on users, or the likelihood that free screening for cervical cancer would significantly reduce its prevalence. But not everyone thinks this kind of information should settle these issues, any more than the scientific fact that men commit many more crimes of violence than women should automatically lead to a policy of preventive detention for aggressive young males. Debates over ethical questions will not disappear simply because one side denounces the other as backward, ignorant, or motivated by religion.

**I**n 1968, Paul Ehrlich, a biologist at Stanford University, published a scary book titled *The Population Bomb*. Backed by the imprimatur of the Sierra Club and armed to the teeth with what seemed to be up-to-date science, the book, which went on to become a bestseller, built on contemporary fears of a global population explosion (a term that first appeared in the 1940s) and carried them a big step further. It opened with these ominous words: “The battle to feed all of humanity is over. In the 1970s the world will undergo famines—hundreds of millions of people are going to starve to death in spite of any crash programs embarked upon now.” While it was already too late to prevent mass deaths, population control could help minimize the slaughter, provided governments acted decisively: “Our position requires that we take immediate action at home and promote effective action worldwide. We must have population control at home, hopefully through a system of incentives and penalties, but by compulsion if voluntary methods fail.”

Not surprisingly, Ehrlich relentlessly attacked the Catholic Church and complained indignantly that in

what were then called underdeveloped countries “people *want* large families” and would continue “multiplying like rabbits” unless their governments imposed draconian controls. He was far from optimistic that catastrophe could be avoided—“the chances of success are small,” he conceded. Still, it was possible to look on the bright side. “Suppose we do not prevent massive famines. Suppose there are widespread plagues. Suppose a billion people perish. At least if we have called enough attention to the problem, we may be able to keep the whole mess from recycling.” The book concluded with a series of steps readers could take to demand action on the part of the federal government.

Almost half a century later Ehrlich remains a hero to some environmentalists, but none of his apocalyptic predictions have come true. Although overpopulation is still a threat in some parts of the world, birth-rates have declined dramatically and resources have proved to be far less fixed than alarmists feared. The hysterical tone of *The Population Bomb* now seems as dated as its authoritarian solutions. The book and its reception came to represent a much-cited demonstration that while science as an ideal is detached and self-correcting, actual scientists can be as fallible and ideological as anyone else.

Today, most of the passions and anxieties the population explosion once aroused are centered on global warming, more elegantly known as anthropogenic climate change. Again, one side claims to be motivated purely by science, while the other argues that the science is questionable. In contrast with the debates over abortion and embryonic stem cells, there is no overt moral or religious disagreement. The dispute in this case, at least on the surface, is solely about facts: Is the atmosphere as a whole getting steadily warmer, and if so, are human-produced greenhouse gases the main reason?

Beyond the immensely complicated evidence and computer models that predict the future climate of the entire world, however, lie familiar political factors, such as a vast increase in government power over the economy and everyday life that advocates say is immediately necessary to avert calamity. Otherwise, it would be hard to explain why activists resort to such overheated language in dismissing skeptics, sometimes going so far as to claim (in the words of econo-



Contending principles were back at war this year when the Obama administration required religious institutions to include contraception in employee health insurance plans.

mist and *New York Times* columnist Paul Krugman) that anyone who denies global warming is guilty of “treason against the planet”—while most conservatives remain skeptical.

When those who question the validity of a relatively new scientific theory are accused of mythical crimes by its supporters, and conversely skeptics attack believers for trying to impose a dictatorship, something other than science is at stake. According to the Pew survey, “The strongest correlate of opinion on climate change is partisan affiliation.” Even more striking, a 2007 Pew poll found that among Democrats, having a college education correlated with an increased likelihood that one believed in global warming, while among Republicans and independents the opposite was true. Probably only nature has the power to resolve this impasse by unambiguously confirming the views of one side or the other. Because such strong claims of a scientific consensus have been accompanied by so much invective against skeptics, the potential damage to the reputation and future credibility of institutional science if catastrophic warming fails to occur is enormous. In the meantime, most Americans rank global warming near the bottom of the list of pressing national issues.

Since the Progressive movement a century ago, the

dream of settling contested questions of governance by empowering scientific experts—of making policy follow pronouncement with no struggle—has appealed to many intellectuals disillusioned with raucous, often ill-informed political processes. To most members of the public who heard President Obama’s inaugural address or took part in the Pew survey, “science” should be a supremely nonpolitical activity, impartial and guided by evidence rather than interest, the opposite of partisan bickering. Partisan bickering, however, is one of the many names for democracy. An extreme but logical consequence of the desire that science and evidence (invariably equated with one’s own convictions) should prevail without

political struggle is the belief in an updated version of the benevolent despot of 18th-century fantasy who can build bullet trains or establish a green economy at a stroke.

The United States is not the only country where claims made in the name of science sometimes clash with the popular will. In Europe, genetically modified crops, which create hardly a ripple here, are an object of heated opposition, while militant hostility to nuclear power coexists uneasily with strident demands for an end to fossil fuels. We may, however, be the only country in which the relation of science to power is itself such a powerful issue. A few enthusiasts, such as Thomas Friedman of *The New York Times*, have wished in print that the United States could have, at least temporarily, a system of government more like China’s that could ignore opposition and do whatever it wanted, or, rather, what the enthusiast wanted. Why not, when those desires are equated with the dictates of science and what any dispassionate expert would recommend? The only thing that stands in their way in a society like ours is politics. Such wishes actually prove the opposite of what their proponents intend: that when it becomes embroiled in controversies over government policy, science is anything but above the battle. ■