PostEverything

Even in 2015, the public doesn’t trust scientists

On climate, vaccines and GMO food, activists shouldn't be more convincing than research.

By Mark Lynas  January 30

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America risks drifting into a new Age of Ignorance. Even as science makes unparalleled advances in genomics to oceanography, science deniers are on the march — and they’re winning hearts and minds more successfully than the academic experts whose work they deride and undermine.

As issues from evolution to climate change become more contentious and politically polarized, scientists and broader public opinion are drifting farther apart. This worrying trend is evident in new public opinion data released Thursday by the American Association for the Advancement of Science and Pew Research Center. The data reveals a huge and growing gulf between what scientists and the public think about vaccines, animal research, genetically modified food, climate change and more.
There is a 18 percentage point gap, for example, over whether parents should be required to vaccinate their children: 86 percent of scientists favor this, as compared to just 68 percent of the general public. There is a much larger gap on climate change: 87 percent of AAAS scientists say it is caused by human activity, compared to 50 percent of the public. Almost all scientists – 98 percent — say humans have evolved over time, while just 65 percent of the public thinks they have.

But for the general public, the strongest anti-science attitudes relate to genetically modified foods. Eighty-eight percent of AAAS scientists say it’s safe to eat genetically modified food, compared to just 37 percent of U.S. adults. Such discrepancies do not happen by accident. In most cases, there are determined lobbies working to undermine public understanding of science: from anti-vaccine campaigners, to creationists, to climate-change deniers.

These activist groups have been especially successful in undermining public understanding of just how united the scientific community is on many of these issues. The polling data shows that two-thirds of the public (67 percent) thinks that “scientists do not have a clear understanding of the health effects of GM crops.” And 37 percent of the public says scientists “do not generally agree that the Earth is getting warmer because of human activity.”

This is a grim paradox, because lobbying groups who shout loudest about the need to respect the scientific consensus on climate change also tend to equally aggressively deny the nearly identical level of consensus on the safety of genetically modified foods.

It is also notable that the number of people saying that GM foods are unsafe — 57 percent of those questioned — is the highest it has ever been, if equivalent polls in 2001
and 2003 are accurate.

The greatest gulf between public understanding and scientific consensus therefore has been driven not by the Koch brothers on climate change or Jenny McCarthy on vaccines, but by the likes of Greenpeace, the Center for Food Safety and other similar organizations.

Not surprisingly, many scientists — whether they design climate models or genetically engineer crops — feel they are under assault. In just five years, since the latest survey in 2009, the number of AAAS members who feel that “today is a good time for science” has plummeted from 76 percent to 52 percent. There is increasing skepticism about American global leadership in science and the way science is taught in schools. Scientists are also increasingly dismayed that government regulations — particularly on food safety and environmental management — are influenced more by public sentiment that scientific evidence. It now costs tens of millions of dollars to get a new genetically modified crop variety past cautious government bureaucrats, because of the public’s fears of modified food; whereas new seeds developed using chemical or radiation mutagenesis can go straight to market and even be labeled organic.

There are serious implications for democratic governance when large minorities — or even, in the case of GMOs, majorities — of the general public ignore or disbelieve the scientific consensus. With vaccines the implications can be immediate: witness the recent measles outbreak in California. On climate change, public support for urgent decarbonization measures is being undercut, while food security and agricultural sustainability is under threat by activists aiming to prohibit technological innovation in seeds.
Lobbyists and activists who promote their ideological agendas and financial interests over those of good science and public policy must take much of the blame for this situation. But scientists also have to be better communicators. With social media, everyone has a megaphone, however well- or ill-informed they are. If scientists want the public to understand their research, they have to spend more time sharing and explaining it to the public. This is the goal of the newly launched Cornell Alliance for Science, which aims to bridge the gap between scientists and the rest of society — in particular on genetically modified crops.

Effective governance in a democratic society depends on voters being able to make choices based on accurate information. If the voices of scientific experts continue to be drowned out by those of ideologues, whether from left or right, America risks moving even farther away from the Enlightenment values on which the republic was founded. Such a shift would harm everyone — whether or not they believe the Earth is warming.