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Politicians, others on right, left challenge scientific consensus on some issues

By Jessica Wehrman

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WASHINGTON — Among scientists, questions about climate change and childhood vaccinations have long been settled. But among politicians, they are still considered fair game.

Often, pronouncements about either subject are accompanied by the politician's mea culpa: "I'm not a scientist, but ... "

It's the *but* that has caused heartburn among scientists, many of whom say such skepticism has an impact on public policy.

"They've been using it as if they can dismiss the view of scientists, which doesn't make any sense," said Andrew Rosenberg, director of the Center for Science and Democracy at the Union of Concerned Scientists.

"It's as if I said, 'Well, I'm not an engineer, but I think the bridge will stand up.' "

Amesh Adalja, an infectious-disease physician at the Center for Health Security at the University of Pittsburgh, agrees.

"Not just as a public figure, but as a human being, your fidelity should be to reality and to the truth," Adalja said.

He said he was galled by U.S. Sen. Rand Paul's recent assertion that the government should not require parents to vaccinate their children because it's an issue of "freedom."

Paul, a Kentucky Republican, is an ophthalmologist.

Similarly, New Jersey Gov. Chris Christie, a Republican known for his blunt rhetoric, said recently that giving parents a "measure of choice" on vaccination is "the balance that government has to decide."

His aides later sent out a statement saying that the governor believes vaccines are "an important public-health protection."

But the murkiness of those comments caused alarm among public-health officials, who say the impact of the anti-vaccination movement is being seen in a measles outbreak in a number of states and Washington, D.C.

Climate change also sparks tension.

Among those agreeing that climate change is both real and a man-made threat are the Intergovernmental Panel on Climate Change, NASA, the National Academy of Sciences, the Defense Department, the American Association for the Advancement of Science and the American Meteorological Society.

That didn't stop 39 Republicans — including GOP presidential contenders Sens. Ted Cruz, R-Texas, and Marco Rubio, R-Fla. — from opposing an amendment last month that blamed changing global temperatures on human activity.

Paul and Sen. Rob Portman, R-Ohio, who is running for re-election, supported the amendment.

However, Cruz, Rubio, Portman and Paul all voted against another amendment that said human activity contributes "significantly" to the threat. Cruz has asserted to the National Journal that climate change is "a theory that can't be proven or disproven."

A spokesperson said Portman did not want to dramatize the word "significant" but wanted to vote for an amendment that brought people together, acknowledged the problem and paved the way to start focusing on solutions, including the development of "clean energy."

In a separate vote, 98 senators — including Cruz, Rubio, Portman and Paul — acknowledged that climate change is "real and not a hoax."

If there's been a shift, it's this: The group that denied climate change is occurring has pivoted, acknowledging that it exists. Still, the group questions whether it is a man-made phenomenon.

"It's hard to convey how irresponsible this position is in 2015," said David Scott, a Columbus resident and president of the national Sierra Club.

"There is an unwritten litmus test for GOP officeholders" to express some form of skepticism about the phenomenon, he said.

As for the caveat I'm not a scientist, "What they're saying they implicitly think is that scientists don't even know about climate change," said former Rep. Rush Holt, D-N.J., a scientist who leads the American Association for the Advancement of Science.

"The point is, to a very high level, scientists do know."

Even those who agree that climate change is real and is man-made might not support government action.

“Just because you state that fact doesn’t mean you necessarily know what the next step is,” said Chip Knappenberger, the assistant director of the Center for the Study of Science at the libertarian Cato Institute. “The next actions to take are not clear.”

He said the disconnect between the public and scientists isn’t necessarily a bad thing.

“To me, it just slows things from going too far in one direction that might not always be the correct direction.” Such a slowdown “gives the science time to mature on some of these issues.”

Kyle Kondik of the Center for Politics at the University of Virginia said most would-be candidates want to appeal to as many people as possible.

“And if you can sort of try to obscure your actual position but not offend anyone, that’s what I think they try to do,” he said.

But it’s possible that their comments reflect a growing disconnect between the views of the public and the scientific community.

A Pew poll released last month found that while 86 percent of scientists who are members of the American Association for the Advancement of Science said childhood vaccines such as the one for measles-mumps-rubella should be required, 68 percent of U.S. adults agreed.

There was an even larger gap on the subject of climate change: 87 percent of the scientists said climate change is caused mostly by human activity, while 50 percent of U.S. adults did.

That disconnect can be measured in the public-policy sphere, said Cary Funk, associate director of research at the Pew Research Center. “Science issues have become civics issues.”

The divide is not necessarily a conservative one.

Although President Barack Obama recently urged parents to vaccinate their children, calling the science “pretty indisputable,” he was less definitive as a senator running for the White House in 2008.

At that time, he called the science behind vaccines and their possible link to autism “ inconclusive,” despite the debunking at least six years earlier of the study that originally reported that conclusion.

And Democrat Robert F. Kennedy Jr., an environmental activist, published articles in Rolling Stone and on Salon.com in 2005 that linked vaccines to autism. Both publications ultimately retracted the articles.

The February Pew poll found that skepticism of science is found on both ends of the ideological spectrum.

For example, while 88 percent of scientists said it is generally safe to eat genetically modified foods, only 37 percent of U.S. adults agreed. GMOs are an issue that generally has ignited the concern of liberals rather than conservatives.

And the vaccine issue is one that has united some liberals, the religious right and libertarians.

A recent study by two Ohio State University researchers that was published in The Annals of the American Academy of Political and Social Science found that both ends of the ideological spectrum express less trust in science when the science involves specific politicized issues.

The study found that conservatives tend to distrust science on issues such as climate change and evolution. For liberals, it is fracking and nuclear power.

Conservatives felt more negative emotions when they read scientific studies that challenged their views on climate change and evolution than liberals did in reading about nuclear power and fracking, but researchers believe that's because climate change and evolution are more national in scope than the issues picked for liberals.

But the study also found that liberals showed some distrust about science when they read about climate change and evolution. That indicates that the issues have become so controversial that even those inclined to believe in them still feel some doubt, said Erik Nisbet, an OSU associate professor of communication and political science and a co-author of the study.

"Liberals can be just as biased as conservatives," he said.

Some of the skepticism is caused by the glut of information. A Google search can bring up a laundry list of theories on anything — some proved, some not.

And hoaxes abound: Johns Hopkins University recently addressed an online post that included the school as a source and said that a strong immune system destroys cancer, that cancer feeds on certain foods and that surgery causes cancer to spread.

Rosenberg said the Internet can provide affirmation of pre-existing beliefs rather than encouraging people to find objective sources of information, such as peer-reviewed journals.

More broadly, special-interest groups — be they the tobacco industry on cancer, the NFL on concussions or power companies on climate change — have a long history of paying for research that aims to cast doubt on other scientific research.

Often, attacking science is the easiest way to justify inaction, Rosenberg said.

"You can't win on the merits of saying, 'I don't really care if the air is clean,' but you can attack the process by which we arrive at the conclusion that we need to take action to reduce air pollution," he said.

"No one is going to get up and say, 'So what do I care about asthma or cancer?' "