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SHERWOOD BOEHLERT INTERVIEW:

Explaining Science to Power: Make It Simple, Make It Pay

After 24 years of serving a House of Representatives district in upstate New York, including the last six as chair of the House Science Committee, Sherwood "Sherry" Boehlert will retire next month from the U.S. Congress. A self-proclaimed "cheerleader for science" on a panel that lacks the power of the purse strings, the moderate Republican sought common ground among both conservatives within his party and Democrats across the aisle on a range of issues including tougher environmental standards and undergraduate science education.

The 70-year-old Boehlert is uncertain about his next step--ruling out an afterlife as a Washington lobbyist but hoping to remain active on national science and environmental issues. But before packing up, he sat down last week with*Science*'s Jeffrey Mervis in his Capitol Hill office to reflect on the nature of government and what role scientists can play.

Q: How well do scientists get their message across to politicians?
On the 24 years I've been on the House Science Committee, I'd say they've gone from a D-minus to a solid B. They're beginning to appreciate that politics is a different realm. …

When you talk to Congress, you have to appeal to the interests of the audience that you're dealing with. To talk about some great advance in pure scientific terms isn't enough. What does it do to strengthen the economy, or enhance competitiveness, or provide more jobs?

I'm a typical congressman, with a bachelor's degree in public relations and no science background, yet I ended up on the science committee. And I say that's the perfect place for me because I ask the obvious questions: Why can't we do this? Why won't this work? I make them think in more practical terms.

Q: How important is the economic argument, and does every project have to have one?
You have to remember that this is representative government, and I'm sent here to exercise my best judgment on the important issues of the day. So if you want me to exercise my best judgment, then you have to prove to me that it has some public benefit besides a bunch of Ph.D.s sitting in a laboratory coming up with something that they can publish that no one can understand. I mean, what's the real benefit?

Q: What would it take for scientists to get an A?
You have to do more advocacy, and the people who are good at it have to train their colleagues. … I have a theory that to be an eminent scientist, you have to invest a lot of time and resources in getting a good education, including a Ph.D., and then you publish a lot of papers. Then suddenly, one day, you have arrived, and people who are aware of your vast knowledge begin to beat a path to your door. And they want to listen to you, so the scientists get used to giving tutorials. But then they want to come to Congress and give tutorials. That doesn't work. We don't have time for tutorials. They need to get right to the point: "This is why it's important. I know there are a lot of competing interests, but here's why we should be at the head of the line. And here's what it means for society."

Q: Some scientists are starting to endorse candidates and raise money for individual campaigns. Good idea?
I don't think that's the way to go. A lot of scientists don't even want to get involved in politics because they think that it's dirty.

I'll bet you that if you look at all the new freshmen, you won't find a single one, from either party, who campaigned on something like the American Competitiveness Initiative, or more resources for NSF [National Science Foundation], or greater investment in science and math education. I'll bet you won't find one. And that's a failure by the scientific community.

Why aren't they more involved? It's not about raising money--although there's certainly a lot of money in politics. Why aren't they visiting candidates and explaining to them, on their home turf at the university in their district, why they should be really interested in their agenda? I tell scientists that their new best friends should be these new congressmen. Don't just visit them in Washington with a lobbyist. Invite them to come to the university in their district, not to a technical presentation that they probably can't understand, but to a general discussion of what's going on and what it means. … I think that the scientific community will be an abject failure if, when these new freshmen start campaigning for reelection, at least a few of them don't have a science component in their platform.

Q: If you became a lobbyist, with professional societies as your clients, what would you tell them to do, and where would you take them?
Of course I would come to the Hill, and to the Science Committee, and to the appropriations committees. But I'd also tell them to get their people back home to come here. Because a person from North Dakota coming to see a congressman from upstate New York is not nearly as persuasive as someone from his district.

Q: What science agencies are most effective at getting their message across, and how do they do it? For example, does it work when the

National Science Foundation invites legislators and their staffs to Antarctica?
You're damn right it does. Because there's no substitute for kicking the tires. I've had two trips to Antarctica, and in the last one [January 2006], I was part of a bipartisan group of 10 members. Of that 10, there were probably two who shared my view that global climate change was real and that we damn well better do something about it. The rest were skeptical or neutral. But after we got back, every one of them had a heightened interest in the subject.

Why? Because down at the South Pole, they heard from scientists about how their experiments related to global climate change. The same thing happened at the Great Barrier Reef in Australia, where we heard how this great treasure was being damaged because of something called global change. And the next time there's a floor vote on the budget of some science agency supporting research on climate change--and I won't be around--I'll bet that this group will be a more receptive audience because they've seen it firsthand.

What are we supposed to do--sit in our offices and read these reports? Like hell. We need to get out in the field and see the facilities. McMurdo Station is not a place I'd suggest as a vacation spot. But we spent 5 days on the ice, and we learned a lot.

Q: Over your career, which science agency heads were the best at getting their message across?
One of the best is Mike Griffin, the current NASA administrator. He understands his audience. I don't need a translator to deal with him, even though I'm a generalist and he's a distinguished scientist.

[Former NSF Director] Erich Bloch is another, without question. In each case, they clearly know their stuff. They know how to make their argument and explain why it's deeply and intensely important to them in a way that is important to the nation. It doesn't do any good if the intended recipient doesn't understand what you're talking about and is looking at their watch, wondering about their next appointment. … To this day, when people think of the ideal NSF director, Erich is who they talk about.

Q: Is the president well-served by his current science adviser, and is science being coordinated effectively across all federal agencies?
Here's the problem. The president has a lot of people vying for his attention. And quite honestly, whether it's this president or Bill Clinton before him, science isn't given the attention it deserves because there's not the sense of urgency that the secretary of defense or the secretary of state bring to the table. And [George W. Bush] has a natural passion for education, which gives the secretary of education an edge. So while we've had capable and fine people as directors of OSTP [Office of Science and Technology Policy], it's not considered a top-tiered adviser

to the president, and the director doesn't get the face time that the other secretaries receive. …

So yes, I think that the science adviser should have greater access to the president. But there have been improvements in this Administration. For example, when Mitch Daniels was [Office of Management and Budget] director, for the first time the science adviser was brought into the budget negotiations with all the science agencies. I think that was an important step.

Q: Speaking of budgets, do you think that the next Congress will curb academic earmarks?
I think so. I think you'll see less rather than more, and that trend is good.

Q: Voluntarily?
Are you kidding? You're going to ask the people who benefit from this practice to stop voluntarily? But I think there's general agreement that earmarks have gotten out of hand, and that something needs to be done.