Climate scientists could learn something from U.S. poet

Opinion

Scientists trying to convey the essential facts of the climate crisis to the public would do well to keep things simple, stay on message and find a way to connect with their audience.

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In his poem, "A Sort of a Song," the modern American poet -- and physician -- William Carlos Williams famously declared, "No ideas/but in things. " More than a poetic manifesto, the line is a definition of empiricism, of extrapolating from the small to the large.

Sound familiar? It's also a description of what Bertrand Russell called the "scientific habit of mind."

"No ideas but in things" should also serve as the basis for communicating about science -- and right now the most important science to communicate has to do with climate change.

Climate blogger Joseph Romm and others have noted the lousy job that most (not all) climatologists have done in trying to communicate to the public the ramifications of human-induced global warming. This has to be in part a consequence of the lousy job graduate schools do in preparing scientists to talk to nonspecialists. (The public shares blame too, depending as it does on the fruits of science while steadfastly remaining scientifically illiterate.)

Academic snobbery may be part of it as well. As a science writer, I am often flabbergasted by researchers who insist on using the phrase "dumbing down" when they consider talking to the wider public. This misses the essential point. It's not dumbing down. It's telling a story. Storytelling among scientists mostly focuses on shortcomings in data, analysis and conclusions. The essence of peer-reviewed science is to find gaps and mistakes so that new findings can fill in and make corrections. But storytelling for the rest of us, though it can't ignore the full picture of science, should focus on the positive -- what the evidence shows and how we can make decisions based on that.

To convey the essential facts of our climate crisis, scientists must take William Carlos Williams to heart. Climatologists -- those in the public eye and those who might be, which is all of them -- should remember the poet's words.

How? Focus on the concrete. Keep it simple. Have your lines -- your sound bites -- in order. Stay on message. (This is Poetry 101 meets Speech 101.) Be able to explain

crisply how science works. Tell a story from your own research. Briefly talk about seeing things in the world or the lab that led to a broader conclusion.

The even larger conclusion to share: Science works by observing, testing, verifying and hypothesizing. If something keeps being verified, we say it's true. Do this in 30 seconds. Yes, it can be done.

Find a way to connect. Most of us don't interact with scientists. But we do interact with physicians. Talk about a doctor enacting a version of the scientific method -- that is, making a diagnosis. If doctors are scientists of the body, then climatologists are scientists of the planet. I know -- this is an argument from analogy and thus not provable. But the analogy is sound and it's memorable.

Show first, then explain. Have you seen a polar bear die of exhaustion, unable to find an ice floe in the rapidly melting Arctic? Give us that story, then remind us that the past decade is the warmest on record.

Consider tailoring your focus to the home place of the interviewer or audience. What will happen to particular plants or animals in that locale in 50 years? One hundred years? What's around us locally is more tangible than data on deep ocean currents or stratospheric winds.

What's memorable is motivating. What's abstract is often forgotten.

When I wrote a book about extinct North American birds, I was confronted with historical descriptions of passenger pigeon migrations. One way I made these massive flocks concrete and immediate was by calculating how long a line of passenger pigeons would have stretched beak to tail. A passenger pigeon was about 16 inches long. A flock of about 2.2 billion pigeons would have stretched around the Earth's equator nearly 23 times! Whenever I share that at readings, people gasp. They remember it.

Do scientists really need narrative and imagistic skills? Yes, because issuing a press release on your findings no longer cuts it when we have just decades to keep the planet from becoming a less exciting version of "Dune." I know this doesn't seem fair -- you already have plenty to do. But public translation of scientific work is too important to be done only by writers and reporters.

Robert Davies, now a physicist at the Utah Climate Center, spent a couple of years prior to that appointment doing something rather unusual for a scientist. He talked to civic groups in Utah and gave radio interviews on climate change. He did this on his own time and own dime, not allied with any group. Rob's a good storyteller on climate

issues. Better known is NASA's prophetic James Hansen. Each has done valuable work in informing the public and policymakers.

Now, most scientists would fall somewhere in the middle of these two poles of local service and international fame, and most scientists aren't at all prepared to be interviewed by a newspaper or TV reporter on a moment's notice. Yet even the most obscure researchers can be thrust into the media spotlight (witness the agonizing coverage of the Climategate e-mails).

Of course interviewers will challenge scientists. They'll bring up fringe voices. They'll even rant. Be firm; be polite. Don't get caught up in tit-for-tat debates over minutia that audiences won't be able to follow. Please stop saying "we don't know" when you could, instead, say, "We're learning more and more about . . . " and "What we do know is . . . " Channel a bit of James Carville into your William Carlos Williams. As Rob Davies tells me, "Not knowing everything isn't the same as not knowing anything."

Remember that you're *not* speaking to the minority of die-hard climate-change skeptics. You're speaking to the public that intuits something is wrong and craves more light than heat -- pun intended.
Williams says in another poem that "it is difficult/to get the news from poems/yet men die miserably every day/for lack/of what is found there." The same can be true of science.

But it doesn't have to be.

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