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An easy, but wrong, answer . . .

Posted on June 30th, 2010 by earleholland

Decades ago, when I was on active duty in a region where Spanish was the native tongue, I saw many troops use a communications tactic sadly common to Americans. Posing a simple question, they asked a local resident, "Where can I get a beer?" and received only blank stares. Leaning in closer to the poor local, they raised the volume by 20 decibels and all-but-shouted,

"WHERE CAN I GET A BEER?"

Setting aside the sad fact that these guys had neglected to do even the slightest homework in preparation for their deployment — what soldier is not going to want a drink when off-duty? — that episode speaks volumes about the skewed view of communications that all too many people hold: In this case, the belief that emphasis and volume will succeed when a common language is missing.

That incident popped back into memory while reading a [Washington Post op-ed column](#) yesterday. [Chris Mooney](#), author of *Unscientific America: How Scientific Illiteracy Threatens our Future* and regular commentator on how public policy and science interact, argued that scientists were equally at fault for the disconnect between science and the public. Former New York Times environmental reporter [Andy Revkin's](#) popular blog, "[Dot Earth](#)," had [cited](#) the column and offered his reaction and that of a handful of science communications experts.

Basically, Mooney was rehashing the argument of who's to blame for the public's weak understanding of science. For years, the scientific community has pointed fingers at the public, citing their near-ignorance of science, and the way it is done, as the explanation for the diminished role that science plays in public policy and in the public psyche.



The public, however, all too often cites their view that scientists are poor communicators at best, that their routine reliance on jargon and technical terms in explanations, and their failure to offer simple answers to what the public sees as simple questions, is the root cause for the disconnect. And a reasonable observer would find some truth in that opinion.

Recently, Mooney, among others, has suggested that both views are valid but incomplete and said the problem is a combination of "cognitive deficit" — the public lacks scientific information — and a lack of listening — scientists prefer to expound rather than converse.

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But that's only a partial answer.

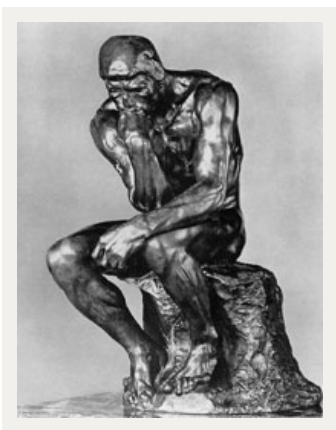
People who hold that position have a narrow view of science communications, focusing primarily on its role in public policy and its value in application to society's challenges.

They forget the traditional role that science has played in our culture.

Science has always been valued in civilized societies for what it adds to collective knowledge, not just for how it might be used. Like art that feeds the soul, science unleashes the human mind, fueling our curiosity and pushing our creative limits.

But in recent years, the defense of science has focused mainly on its return-on-investment, it's ROI, as if all activities must have an obvious commercial value. The applied usefulness of research is now the standard by which scholarship is measured by public and policy leaders alike. And the increasing concentration on that reasoning threatens our scientific progress.

Science, like other human endeavors, has a value in its own right, regardless of its utility. The greatest scientific minds in our history were trying to learn and understand – not just fix something, and our current attitude that science must earn our support by the solutions it provides simply limits our potential for the future.



But that, sadly, is the common view today.

The argument over scientists' role in communications about issues of public interest and controversy — like climate change, evolution, vaccine safety, etc. — is not really about knowledge. It's about persuasion, with a view that scientists ought to be better players in the game of convincing others about one view or another. As with other citizens, scientists are equally obliged to help insure an informed electorate and a literate populace.

But they are not responsible for the faulty level of scientific literacy that plagues Americans. The country's own disinterest in science is to blame. As in the problems with our public schools, it's easier for the public and policy-makers to label a teacher as ineffective rather than fault the class for not learning.

Humans will spare no effort in learning things that interest them. But they will also consistently ignore the boring, and the constant "he says-she says" bickering that plagues these so-called science policy issues.

Let the scientists do science, while the rest of us do our homework. __Earle Holland



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4 Responses to “An easy, but wrong, answer . . .”

[Tracy Seeley](#) // Jun 30, 2010 at 7:43 pm

This is a terrifically clear explication of the problem. There seem to be deep roots, too, in the divide between science and the humanities within education—which I experience in my work at the university level. Stephen Jay Gould’s *THE HEDGEHOG AND THE FOX AND THE MAGISTER’S POX* lays out such a good case for when and how this great divorce happened and what perpetuates it. If science were perceived in academia, education and the popular mind as a vital mode of inquiry and understanding rather than a silo populated by non-communicative experts, we’d all be a lot better off. Making a shift in that direction will depend on educators and scientists finding a common language; at this time of climate destabilization, such an effort is vital.

Newbaum Turk // Jul 10, 2010 at 8:56 am

You are correct in pointing out that EVERYONE is to blame for the lack of scientific knowledge but your analysis is scrambled. The onus of educating the public does in fact lie upon the educated.

And yes, as Charles Murray points out in his book *Real Education*, half of the students are below average in terms of intelligence and capability. Which means a significant percentage of the populace will never “get it,” but you and I both know that many of those teaching in government-run schools are woefully under-prepared in both science and math. Who’s fault is that?

And in many cases, why shouldn’t the population be skeptical or aloof when it comes to scientists and their desire to control or influence public policy? Climate change is the modern classic example (while eugenics is the old, progressive standby). In 1976 when I was studying science in 7th grade, we were told about global cooling. Our class assignment was to come up with ways to warm up the earth. Today, it is (only) anthropogenic carbon dioxide that is the cause of global warming. This would be laughable if it wasn’t so darned serious. In 1976, the chicken-littles wanted a few million tax dollars to fund their research. Today, those who scream the loudest not only want billions in (wasted) research dollars, they want to control trillions of dollars of our economy through a stone-age energy policy.

And the science behind it is a game at best (as the Climategate emails have shown), and laughable at worst (shouldn’t water gas be the main focus since it absorbs far more of the spectrum and is in far higher concentration than carbon dioxide?...but, no, that would be too scientific and you couldn’t reflexively blame mankind that way).

The whole climate change debate would be interesting as an intellectual exercise but many (most?) scientists are as rigid and dogmatic as any Ayatollah (including you, based on your posts about Climategate and your one-sided “What We Read” list), so give me a better reason as to why I should pay attention to what you say...about ANYTHING? Perhaps the public should pay more attention in order to simply stop them (you).

There are many other examples. The whole embryonic stem cell controversy shows not only how dogmatic many scientists are but immoral as well. And while this opens up an interesting philosophical debate, I will limit my comments to the fact that embryonic stem cells have been a spectacular failure; not only has it not lived up to the promises but it has killed many more people than it has saved. You and I both know that adult stem cells have been much more promising in terms of their efficacy and ethics.

And today I learned that the newest mission (and top priority?) of NASA is to reach out to the Muslim world (after shutting down the shuttle program). An admirable goal, I suppose (not), but do you have to use my hard-earned tax dollars to do it? Is that really the role of our premier scientists? Or is this some kind of puerile joke?

The solution isn't simple but start with this: let scientists be scientists but on their own dime. While many are for the separation of church and state, I am for the separation of science and state (especially the leftist, progressive kind). They both would become far less dangerous that way.

The second step would be to separate school from state. Public education is this country's most expensive and abominable failure.

Put another way; if you and your posts represent what is good and proper in science and its pedagogy, I want no part of it, for it shows a distinct and intentional LACK of education.

So, yes, please go back and do your homework ...for humanity's sake.

[Jay](#) // Jul 24, 2010 at 1:24 pm

That is ignorant those soldiers shouting where do I get a beer? We want foreigners to learn the English language if they are living in the states. If your in a foreign country at least have the decency to learn a few basic words like where can I get a beer in Spanish. It works both ways, great post!

[Ancestry Search Free](#) // Dec 23, 2010 at 5:13 am

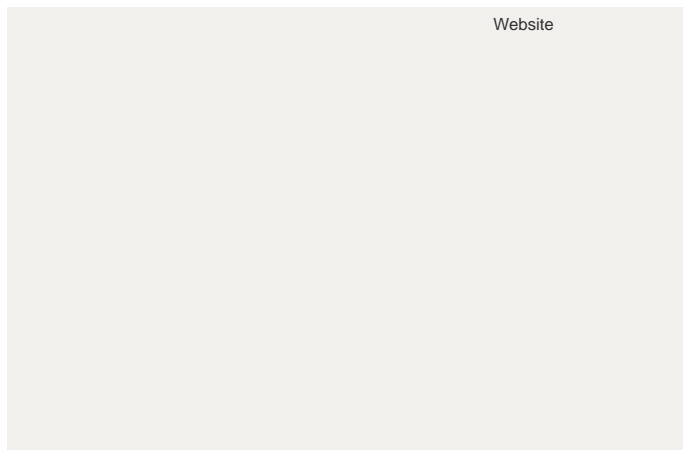
I would have to agree that a lot is lost in translation. The scientific community is more interested in being scientific, rather than communication. In a large part I think it is just the way that scientists are and that is fine we have enough politicians. It really is tough because the passion put into this work is lost if not communicated in a way that is not lost on deaf ears. I am sure the soldiers quickly learned a couple words in Spanish.

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« [If only life were fiction . . . Of Selenites and dark holes . . .](#) »

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