

Speaking Truth to Power

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The Unwritten Contract

For their 20th anniversary issue, the editors of *Issues in Science and Technology* invited some of the authors in their first issue to comment on their observations of 20 years earlier in the light of today's realities.

In my 1984 article, I wrote about the hugely successful “unwritten contract” that prevailed between science and society: science was given resources and autonomy to pursue its work in its own way and at its own tempo without insistence on quick utilitarian payoffs. In exchange society got the implicit promise of greater benefits and innovations.

In my new piece, 20 years later, I concluded that science had brilliantly lived up to its end of the contract, but the political community had not. Indeed, in retrospect, a hidden Faustian element has emerged that has subverted a vitally important part of the contract. Science still has resources and autonomy, but something invaluable has nonetheless been lost.

To fully understand what that is, we need to go back to the post-World War II era and to the relationship between President Dwight Eisenhower and his science advisor, James Killian. It was a relationship based on mutual respect, trust, and even equality. Years earlier, this same kind of respect and equality had encouraged scientists to convince Albert Einstein to write a letter to FDR about the possibility of developing a nuclear device – a letter that changed the history of the world.

As I look back, it seems to me that what science has lost is the respect and equality that gave it an implicit license to speak truth to power – to tell it like it is, irrespective of political inconvenience. This condition is absolutely necessary to the healthy functioning of democracy, and science's loss is also society's loss.

The relationship of mutual respect between Killian and Ike continued for a number of years after Eisenhower. It gave scientists the right, and the solemn obligation, to play it straight with the highest power in the land, to the immense advantage of the larger society. But gradually over the years, this relationship of mutual respect and equality eroded. During the Reagan Administration, for example, the President's science advisor found himself testifying before Congress against the President's “Star Wars” initiative. The Administration, furious at what it regarded as disloyalty, responded by marginalizing science and its representatives.

Here you see clearly and dramatically the clash between two value systems: a political value system that places loyalty over all other values, and a scientific value system that places intellectual honesty and integrity above all other values. We recently saw the same clash when the scientist David Kay stated that “we were all wrong” about weapons of mass destruction in Iraq, while both the President and the Vice President refused to

acknowledge any such error and even suggested these elusive WMDs may yet turn up in Iraq. And our keynote speaker Dr. Marburger is currently embroiled in a similarly painful and divisive argument with a number of our nation's leading scientists over the Administration's use of science on a wide array of issues.

So instead of the win/win contract of the past, we are threatened with a lose/lose situation – with scientists losing an all-important privilege and moral obligation, and the larger society losing even more.

Rebuilding Mutual Respect between Science and Politics

My opinion research firm, DYG, Inc., has been tracing public attitudes towards the dangers we face as a society. Recently, we were astonished to find that six out of ten Americans (61%) believe that the present time is “the most dangerous they have ever experienced in their lives” – with older Americans expressing this concern more often than younger Americans.

In such a climate of anxiety and foreboding our best chance of navigating our way to survival, safety and the well-being of our society (and of the world) is to restore the climate of mutual respect that permitted the scientific community to speak truth to power and obligated those in power to pay proper heed to the voice of science.

We did it in the past. We should be able to recreate the conditions for mutual respect and equality, although we may have to develop new structures to do so. I believe we need to create such structures to avoid the direct clash between the political and the scientific values systems – between the demand for loyalty and the demand for intellectual honesty.

Politics is a rough game, even in America, and it is getting rougher all this time. Suppose, for example, that Dr. Marburger were to pull a Richard Clarke and tell Senator Daschle, a Democratic leader, that the situation in the Bush Administration is even worse than scientists think it is. This would be regarded as high treason by the Administration. Not only would Dr. Marburger be pilloried, but so would the entire scientific community.

So if we are to restore the fundamental right and obligation of science to speak truth to power, the scientific community must do two things:

- First, it must find new ways to make its conclusions count in national policy without riding roughshod over political loyalty.
- And second, it must find ways to give its positions greater status and influence in the event of a direct clash between science and the will of political leaders.

Two Structural Changes

Briefly and schematically, I propose two structural changes in the relation of science to political power that have the greatest promise of repairing the damage to the unwritten contract – and perhaps even improving it.

1: Reposition Science as a Framer of Policy Options

The first suggestion is to reposition and upgrade the White House Office of Science and Technology Policy so that the President looks to it first for policy options on all matters

that have significant scientific as well as public policy components -- issues such as climate change, stem cell research and cognitive development.

Currently, policy options are formulated in parts of the government that may or may not seek input from appropriate scientific bodies. But this pattern has not always prevailed. When Jack Kennedy was President, he liked to keep the policy option framing process close to the White House (especially after the Bay of Pigs). His policy advisor, McGeorge Bundy, worked out of the White House basement. Bundy spent much of his time formulating the range of choices the President needed to consider on a wide variety of issues. Bundy was the “options czar” of his day. He was a strong-minded executive who held firm opinions on what the President should do on every issue. But he maintained his credibility by presenting alternatives to his own preferences in a completely fair-minded and cogent fashion. Bundy’s intellectual honesty earned him the right to do full justice to his own positions after having included a full range of others.

Controlling the process of formulating policy options is an Archimedean lever of great effectiveness. The rationale for encouraging the scientific community to take on this role is, I believe, persuasive: It is easier for policy-minded scientists to grasp the non-scientific complexities of a policy issue (like climate change), than for non-science policy people to grasp the scientific aspects. Also, framing and analyzing the *technical* vs. the *value* aspects of policy positions and acknowledging the merits of alternative perspectives requires the kind of intellectual honesty and detachment that scientists most value, and that some do superbly well.

The scientific mindset, training and value system is particularly well suited to the high art of formulating options and scenarios. If scientists control the option formulation process for science-laden issues they would have a vehicle for (i) communicating their own convictions persuasively, (ii) critically appraising alternative options, (iii) getting a fair hearing at the highest levels of government, and (iv) avoiding the “political loyalty” conflict.

2: Forge Common Cause with the Public

Clearly, acting as an option framer may not be enough if a political leader lacks objectivity and is set on a course of action that violates scientific common sense.

Science would be immensely strengthened if it were to ally itself with a major source of power and influence so that its voice could not be ignored. I am not suggesting that science ally itself with specific political lobbying groups or organizations. I *am* suggesting that science ally itself with a most improbable source of power and influence – namely, with public opinion.

My proposal will strike many of you as highly improbable because foremost among professional groups in our society, science has remained remote, aloof and dismissive – if not outright contemptuous – of public opinion, on the grounds that the public is woefully uninformed and uneducated.

The comparison that comes to mind is with the foreign policy community. It is also remote and disdainful of public opinion. In his early years as Secretary of State, Henry Kissinger thought of public opinion as an albatross around his neck. Only in his later

years did he come to realize that in a democracy such as ours you can not have a successful foreign policy without the support of the American public.

The same is true of science policy – whether on children’s cognitive learning skills or weapons of mass destruction. All public policy issues are a combination of technical elements and social values and beliefs. And when it comes to values and beliefs the public is frustrated because it wants a voice that will be heard. Science can provide that voice, and the public in turn can support the voice of science.

The Need for Specialized Forms of Discourse such as Dialogue

The analysis of ways to find common ground between science and public opinion and how to build bridges between these two disparate worlds is too complicated to elaborate in this short talk. So I will confine myself to a few general observations.

The first is that when people bring different frameworks to an issue it is almost impossible for them to communicate with one another through ordinary conversation. Ordinary conversation works fine when people share a common framework. But scientists and the public do not, and they only rarely comprehend one another through normal conversation or discussion.

For decades, scientists have assumed that the solution to this problem is to find ways to make the public more scientifically literate. It would, of course, be wonderful if the public knew more about science. But this wouldn’t help on public policy issues. It is difficult enough to get scientists to agree among themselves; a nation full of semi-scientifically literate people would just add to the cacophony of conflicting voices.

What is needed instead are special forms of discourse that permit those with a scientific framework (that is, yourselves) to communicate and seek common ground with those operating from a core values framework (the general public). To bridge this kind of framework gap, two organizations - - Public Agenda and Viewpoint Learning -- have developed specialized forms of dialogue that can help scientists and the general public find common ground with one another.

There are two requirements for these special dialogues to work. One is that a huge amount of advance preparatory work must be done. For example, if the issue were climate change, you would do extensive analysis and preparation of materials to develop a range of possible policies covering the political spectrum and their pros and cons. Both scientists and the public would focus sharply on practical policy choices rather than getting sidelined by ideological or technical issues.

The second requirement is to insist that participants observe the strict rules of dialogue, such as avoiding debate, suspending judgment, leaving status differences outside the room and making assumptions explicit. The word “dialogue” is often used loosely to designate a particularly earnest form of conversation. But in fact, when defined technically, dialogue is a highly specialized method of discourse, with strict rules and discipline.

The goal is for the scientific community to be able to say: “We have talked these policy issues through with average voters and while there is some disagreement, both the

scientists and the voters agree on X and Y.” And I guarantee you from my 50+ years of studying public opinion that there will be plenty of Xs and Ys to agree on.

Conclusion. In conclusion, let me simply state that no mission could contribute more to our future security and well-being than for our large, intelligent, talented and highly motivated scientific community to once again be free to speak truth to power – and make it stick.