vidual scientist correlated fully with his nationality. . . ."

The negotiation of TWG 1 identified a number of methods to verify the occurrence of nuclear explosions in outer space. TWG 1 was relatively harmonious and can well be given credit for the fact that the Limited Nuclear Test Ban Treaty of 1963 included explosions in outer space in its prohibitions. One reason for the more positive outcome of TWG 1 relative to TWG 2 was that one option, introduced by the US side for detecting space nuclear explosions with photomultipliers deployed on orbiting satellites (the basis of the VELA satellites), was a more capable system than the ones introduced by the Soviet side. Thus, in this instance, the correlation between nationality and position taken, which occurred in TWG 2, was broken: As Barth points out, the US side generally took the position that detection and identification would be more difficult than was asserted by the Soviet side.

Let me recite one anecdote about the lack of government instruction in this respect. One method of detection, ionospheric radar, uses the fact that a nuclear explosion in outer space deposits energy in the ionosphere and thus changes its ionization density. This, in turn, modifies radar reflections from the ionosphere. The Soviets objected to the inclusion of this method in the verification system since, presumably, they knew that ionospheric radars could also detect missile trajectories. In a private conference with Yevgeny Federov, the head of the Soviet delegation, I pointed out that we were charged with laying a scientific basis for verification of a potential nuclear test ban treaty and that other factors, including political factors, were not to be considered. Federov replied (I'm quoting from memory, not from a record), "I am to take all considerations into account!" I therefore proposed that we simply should agree to disagree on that point so the work could go forward. I then cabled the State Department for instructions to permit me to "agree to disagree" on the point. A reply cable said, "What is an ionospheric radar?" I cabled back, "Please check with the President's Science Advisor." I received a cable back, "The cognizant person (Spurgeon M. Keeny Jr) in the President's Science Advisor's office is in Geneva negotiating as part of the TWG 1 team." So we went full circle and ended up making up our own instructions.

Another illuminating episode was the following. At the end of the negotiations, I proposed to write a "motherhood" clause stating (again quoting from memory): "The previous assessment of the capability of the detection system is based on existing knowledge of signals and backgrounds. A future assessment may make detection capability appear either better or worse, depending on future assessments of signals and background." Federov replied something like, "Oh no! In the future detection capability must always be better since according to Leninist dialectic, scientific progress is unlimited and therefore will favor our needs." We agreed to omit my proposed phrase altogether.

In summary, the negotiations undertaken by the Conference of Experts, TWG 1 and TWG 2—all conducted on a technical level—were an interesting political experiment that has not been repeated. It is fair to say that neither the US government nor the Soviet government had carefully analyzed the implications of asking scientists to negotiate as government delegates. Among other problems, they did not settle the question of whether the product of the negotiations would be an agreed-upon and immutable scientific basis to be referred to the political authorities (the expressed Soviet opinion) or simply a scientific assessment that could be changed as new scientific information became available (the US delegates' view). There also was no understanding on the political level—on either side—as to the meaning of "adequate" verification capabilities.

Thus, President Eisenhower's idealistic concept, that scientists who were citizens of states of opposing interests could establish objective truth to lay the basis for future political negotiations, turned out to be only partially successful.

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Award "Good Physics" Seal to Approved Nonphysics Texts

I couldn't agree more with Peter Schoch's lament about incorrect physics in nonphysics texts (PHYSICS TODAY, March, page 11). He is to be commended for writing to the publisher of the problem text he described, and the unnamed publisher is to be commended for taking Schoch's constructive criticism seriously. It would be nice if all such publishers would submit their materials to authoritative physics reviewers and thereby avoid the risk of putting out inaccurate or embarrassing texts.

I suspect that individual physics professors like Schoch and myself would not be able to get many publishers to cooperate. But perhaps the physics community could do so, acting through an organization such as the American Institute of Physics or the American Association of Physics Teachers.

Imagine, say, AIP or AAPT setting up a small committee to do the actual reviewing. Then, when the committee approves a particular book, the parent organization could issue a "Good Physics" type of seal of approval, which the publisher would be authorized to affix to the book.

Is this suggestion practical?

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Fifteen Ways to Get Your Audience to Leave You

I have found 15 effective ways to transform good science into a poor presentation. Here is the list, which I use for my own benefit and that of my students:

1. Cover too much material.
2. Include too many details.
3. Start with too much small talk.
4. Run over the allotted speaking time.
5. Avoid telling the audience why your research has been done.
6. Overestimate, or at least fail to assess, the audience's level of knowledge.
7. Fail to make contact with the audience.
8. Ignore the inherent difference that exists between oral and written communication.
9. Waste time searching for a specific overhead foil somewhere in your pile.
10. Use unexplained terminology, abbreviations and acronyms.
11. Use unexplained symbols in text or equations.
12. Use unexplained graphics.
13. Present overhead transparencies that are unreadable.
14. Read *in extenso* from projected transparencies.
15. If the moderator has just introduced you to the audience, alienate both parties by opening your presentation with such details as your name, your affiliation and the title of your talk.

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