DOCUMENT RESUME

ED 133 221 SE 021 883

AUTHOR Mariella, Raymond P.
TITLE A Scientist Views Communication With The Public.
PUB DATE Feb 76
NOTE 8p.; Paper presented at the annual meeting of the American Association for the Advancement of Science (Boston, Massachusetts, February 22-23, 1976)

EDRS PRICE MF-$0.83 HC-$1.67 Plus Postage.
DESCRIPTORS *Communications; *Educational Television; *News Media; Public Relations; Science Education; *Sciences; Scientific Attitudes; Scientific Enterprise; *Scientists; *Television

ABSTRACT

This document stresses the problems involved in communicating science to the public; some suggestions, however, are discussed that have proved successful in this task. Television is cited as a good medium to present the scientist as someone other than the usual stereotype. Advice is given on how to present science to the public via television. The need for improved public relations with the non-science public is discussed. A description is given of efforts by the American Chemical Society to improve their relations with the public. Their news releases and the book, "What's Happening in Chemistry," both of which are aimed at communicating technical material to the non-scientist, have been successful. (CS)

Presented at the February, 1976 Annual Meeting of the American Association for the Advancement of Science in Boston.

A SCIENTIST VIEWS COMMUNICATION WITH THE PUBLIC

Raymond P. Mariella

Loyola University of Chicago

The reason I am here--I am sure--is due to my ten years of experience in Chicago producing and performing on TV shows aimed at explaining science to the public. In my last six years, exclusively on CBS, I had my own show which was on the CBS operated-and-owned network coast to coast. It was called "Science Unlimited".

There were many lessons to be learned. Even in the hayday of science from the late 50's to the late 60's, sponsors of TV science shows were scarce and so I and many like me throughout the country conducted public service programs. This means little or no budget and so the overwhelming burden of planning the program, securing guests, arranging the details did rest mostly on the back of the scientist performer. The burden of a weekly 1/2 hour show was horrendous indeed and this was the reason, after many years, I finally had to give it up.

Clearly success, no matter how you define it, depends on many factors. First, you must convince the brass of the TV stations that you are acceptable and doing a good job and are getting favorable viewer response. Frankly, TV brass are sensitive people, perhaps more sophisticated than the general viewer at home but still not scientists.

TV brass and the general viewer are most attracted to sensational performance, sensational statements and sensational demonstrations. This brings me to why I got into that racket in the first place.

I had always been upset by the portrayal in movies, radio, newspapers, TV, etc. of a scientist as a strange or kooky person. If I may condense the public's view of a scientist: He is bald headed, wears thick horn-rimmed glasses, works strange hours in strange places, has a heavy thick foreign accent, strange mannerisms and usually bent on destroying the world or producing something evil. This really annoyed me. Most scientists I know are decent people, quite presentable, nice family men and women, and not kooky. Clearly to my thinking, the media had grasped and latched on to a small minority of kooks and so I did what I could to dispel the myth.

It later dawned on me that the myth was caused by the following: kooky scientists (and there are some) are most eager to appear in public, to be seen, to be heard--whereas the ordinary respectable type of scientist usually shuns the public eye. Since the public seems to have this preconceived view of the scientist--the public believes as real and authentic the kooky type which has appeared before them so often on the communications media. In my view the public perspective was all wrong.

At any rate, I found that success as a TV performer was really related in a way to success as a lecturer in college. No doubt the exciting well-planned, brilliant lecturer whose personality is very pleasing is most desirable and appreciated by the audience and holds the attention of the viewers.

If you communicate with the public--who are not scientists, you must hold their attention--must go to great lengths to explain complicated ideas to them in words and expressions that they may understand. You must never condescend

to them and make them feel inferior. Any acceptable gimmick may be used--but fraud must not be foisted on them. Here the ingenuity of the performer is so important. This takes time, planning, a large effort, money, and patience. I feel that the moment you are deliberately deceitful (trying to make a point) you will be recognized by your fellow scientists--whom you will alienate--and you will lose their backing.

The secret of what success I had was to keep the program moving all the time. Just talking will never do! I would vary what was going on every 3-4 minutes, i.e., I would introduce the show--then talk to a distinguished scientist--interview students--then show some movies, pictures, slides, demonstrations, or other visuals--then show science in the news and close the show; 27 1/2 minutes would pass quickly. At all times, the people, guests, experiments were real and not faked.

So, success to me depends on keeping the approval and backing of fellow scientists and TV brass, as well as the general viewing public. We must remember that any TV show must compete favorably with all the other programs available at the same time.

So to get your message to the public, to keep them interested long enough to hear you and yet to be truthful and honest in your effort and to give both sides of controversial matters is a most difficult task. No one says it is easy--but it is a necessary task. We need scientists who are willing to do just that.

The facts are that scientists have no strong public relations effort--except for a rare movie or documentary--scientists are essentially left to the vicissitudes of fate.

However, this is not the case for physicians, lawyers and the clergy--and this may be true because physicians, lawyers and the clergy have direct

contact with you--in the ordinary course of your lives--whereas the average person may never contact a working scientist or engineer.

To be sure, we see in TV and the movies and in novels, the ordinary working procedures of the physician and lawyer glorified beyond belief--or saying it another way, they appear as heroes!--we are conditioned to expect miracles and glorious things from physicians, lawyers and the clergy--frankly, many people feel uncomfortable to hear, see or read anything derogatory about them--now that's great P.R.

How many national TV shows glorify the working chemist? the geologist? the microbiologist, etc. I do not know of any! But we sure see physicians and lawyers portrayed as super heroes everyday on TV.

Certainly we cannot use the argument of the highly technical material being the obstacle, for such an argument would apply to physicians as well. Perhaps the answer rests in the mental barriers and disinterest by the lay public in anything which does not directly affect your own body in a clear demonstrable way that you can understand. Another facet to consider is that John Q. Public may not be able to draw the line between true science and science fiction--too much "gee whiz--the water gets muddied!"

So what is the outlook? Can we make progress? Yes, I think so. But here are the conditions:

1. You need an acceptable--respectable scientist--acceptable to his peers as well as to TV groups and the national audience--this may be the easiest hurdle to overcome--many qualified

2. You need someone to devote a lot of time. In fact an enormous chunk of time--this is hard to do--and combining #1 and #2 now becomes very difficult.

3. The scientist needs help, a lot of help: producers-- TV aids - film clips - cartoons - time lapse photography - tried and true lab demonstrations - this requires a lots of money - perhaps sponsors!

4. Acceptable time slot--reasonable viewing audience--recall most audiences want to be amused--or to be gripped by great emotion and drama--you have to compete--in TV you know more or less the makeup of the audience every 1/2 hour from 6 p.m. to midnight.

5. And finally, to assist in this effort, should we have a sponsor to buy costly time and aids? And then we have a question--should a respectable scientist be sponsored by a product? Does that mean endorsement?

To combine all of these things in an acceptable way is possible but not probable! That's why it does not happen!

And now, let me turn to an area in which we have made great progress; it is slow, but sure. Currently, I am on the Board of Directors of the American Chemical Society and am Chairman of the Board Committee on Public, Professional and Member Relations. We are constantly facing the problem of communication with the chemical public as well as communication with non-chemists or aspiring chemists.

We do a very fine job in writing to the chemist and aspiring chemist, and are constantly trying to improve and to find perceptive minds for our news releases throughout the country. This type of interaction never ceases. We have developed skills in writing highly technical material for publication in newspapers. Naturally, trying to please everyone is an impossibility. That is an important point. You must set up a goal - a realistic goal - and try hard to reach it.

Trying to convince a newspaper editor to print a science release and to convince the scientist that the release is accurate and keep the material in true perspective is very difficult. We feel we are successful because experience, skill and perseverance are important components in this endeavor. We will never stop trying to improve.

Let me give only two specific examples of very successful efforts:

1. A copy of "What's Happening in Chemistry?," just off the press, is here. (hold up the publication)

This summary of a year's highlights of influential developments in chemistry was first issued early in 1973 under the title, "Chemistry in 1972". It was developed under the direction of the Department of Public and Member Relations and directed to the news media as a source of dependable information with the objective of stimulating good coverage by press, radio, and television. Its goal was better public understanding of the importance of chemistry in benefiting the life of the average citizen. It is written for the non-scientist and is well done!

"Chemistry in 1972" was well received by the news media and drew a surprising number of requests for copies by people outside that profession.

In 1974 the press run was increased to more than 5,000 and copies were offered for sale. It sold well.

For 1974, it was decided not to date the title as that shortened the useful life of material that was not limited in value to a past year. Again it is being offered for sale, in addition to being distributed to the news media.

In the interest of credibility, it is not written promotionally or as a whitewash. It includes problems encountered as well as the sparkling advances. But it provides information to show that chemistry not only uncovers problems, but also develops the means of solving them. I have given them to Classics professors, political scientists, housewives, teenagers and all agree it is well done.

2. Another example:

An interesting effort to overcome the hurdle of news releases by the ACS--acceptability to newspaper editors, availability of newspaper reporters to write the material for the papers, etc.

The ACS has begun to write complete stories as releases in precisely the manner in which a newspaper does indeed publish interest, news, science stories.

This does overcome all the hurdles since the Editor, if he wishes, can publish the material--as is--without any effort.

This endeavor takes a lot of time and effort on behalf of the ACS staff, but it is worth it since it is <u>our story</u> which is published as <u>we</u> want it.

We are increasing our efforts in this direction.

I think it would be good to conclude that the communication of science to people is not easy, as any science professor can relate; and certainly, the communication of science to the lay public is most difficult. Being difficult does not mean it cannot be done, we must try harder to improve so all mankind will benefit.