THE SCIENTIST AND THE GENERAL PUBLIC

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Introduction

All effective communication depends on a clear preliminary definition of three things:

First, and most important, the communicator must define what he wishes to communicate, master the subject, and eliminate the inessential. Nothing is as confusing, or as irritating, to an audience than the introduction of irrelevant matter.

Second, the communicator must define his audience. A similar message may need to be couched in very different terms for effective communication to, for example, a group of scientific researchers, a panel of civil service administrators, and a newspaper's general readers.

Third, the communicator must define the means at his disposal for conveying a message. A class-room or a radio may be equally useful, but the techniques to be used in each are necessarily different.

The mass media

Scientists and scientific administrators have an undoubted duty to explain their activities to the general public. Whether as taxpayers or as customers, it is the general public that pays for those activities. Science often seems difficult, obscure, even irrelevant to the daily lives of ordinary people. Scientists, if they wish to secure the necessary material and moral (and even political) backing for what they do, must try to break down the barriers of incomprehension. Willing, constructive and frank cooperation with the newspapers, radio and television are the only effective methods of achieving this.

The "mass media" must always be respected - if only because the "mass" that reads newspapers, listens to radio or watches television includes a large number of specialized audiences. Political leaders, civil servants and specialists in other disciplines get from the mass media most or all of their information about subjects outside their speciality. The mass media are truly democratic: they include in their various audiences everybody you need to speak to.

There are special difficulties for a scientist wishing to communicate with the general public. First, he must not assume that his audience understands or even sympathises with what he is trying to do. He must realise that his subject is strange and remote, and try to relate it to the interests of ordinary citizens within his society. Second, he will almost always have to work closely with a specialist in communications - a producer or reporter or interviewer - whose job it is to help convey a message which he probably does not himself understand (although he may, unfortunately, believe that he does).

Furthermore, the requirements of the press, radio and TV may impose an additional administrative burden on the organisers of scientific events. Advance information must be provided in such a way as to stimulate the interest of editors and programme planners. Press releases must be made available promptly at the conclusion of any meeting or briefing. And busy scientists and administrators must be prepared patiently to meet the sometimes unplanned and disorganised requirements of the press.

Contacts with the media

When planning scientific meetings, or announcing scientific schemes for developments, organisers and administrators should at an early stage consider whether the public may be interested. If it is thought they may be, advance notice should be given to the appropriate newspaper or broadcasting organizations, and a member of the organising team should be designated as spokesman. If editors or correspondents express an interest, it is often highly worthwhile inviting the relevant person beforehand for a background chat, at which some groundwork of information can be laid and friendly contacts established. News correspondents need news, not final reports and official documents. They will wish to announce the relevant event as or before it happens. They will wish to announce its conclusion as soon as it ends.

Journalists are often ignorant in specialist fields. If they are not helped, they will make mistakes. If helped, they will get it right, and getting it right is what they want to do.

Press releases

Good science press releases are written with the press in mind, and designed to provide non-expert journalists with the raw material for an informed story. Bad science press releases are written for the writer's fellow-scientists, and designed as administrative reports on his work.

Include in press releases an accurate, if simplified, account of the conclusions of the event or develcpment being described. Include the names of the main contributors to the new development; include the names of the governmental or public figures who have attended or spoken at the relevant

ceremonies (opening and closing ceremonies, laying of foundation stones, etc.)

Exclude from press releases long historical accounts of underlying developments. Exclude polite acknowledgements of services rendered: exclude lists of names of passive participants. Exclude, above all, anything that sounds like self-aggrandisement by the organisers.

Try to tell the truth, as simply as the truth can be told without distortion.

Press conferences

Journalists need to understand the significance of the event they are reporting on. They are often very good at finding out in general terms what has happened: they need to know its significance, and to find ways of making it interesting to their readers. Press conferences are most valuable to the press as an opportunity to put questions. The ideal press conference starts with a very brief statement from its chairman, and is then opened for questions as soon as possible. Journalists know what they need to know better than non-journalists. The press conference is their chance to find it out.

As much background material as possible should be provided in advance of a press conference, in written form. If radio and TV have special requirements in convering a press conference (for example, placing of microphones or recorders, lighting, arrangement of the background for pictures, etc.) they should be met in advance, in consultation with the relevant reporters. Reporters know what they need: scientists who wish to convey a message should consult them.

Press conferences should be planned for the convenience not of participants, but of journalists. Punctuality, reasonable comfort and audibility are essential. Journalists always face the problem of deadlines: a news broadcast set for 6 p.m. cannot take note of a press conference held at 5.45: a weekly journal published on Friday will need its copy on Wednesday. It is a press officer's job to ascertain these needs of the press, and to satisfy them as far as reasonably possible.

Newspaper interviews

Granting an interview to a newspaper journalist is a cooperative venture: the article will be good if the journalist and his subject agree on the final message, and bad if they disagree. Success demands the constructive participation of the interviewee as well as of the interviewer. If granting an interview, try to ascertain what the interviewer wants, and tactfully steer him into wanting the right thing. Interviewers are specialists too - specialist in communications. They can help you to get your message across, but only if you help them.

Newspapermen everywhere are used to the convention that some things may be said "off the record", and others for quotation. Some newspapermen everywhere do not observe, or misunderstand, the convention. Interviewees should clearly grasp the rules of this game, and make reasonable judgements about the extent to which journalists can be taken into their confidence.

It is often extremely useful to provide journalists with background material explaining the full context of a development, even if this is not to be printed. A journalist is likely to be favourably impressed by frankness, and needs all the help he can get if he is to give a full and fair account to his readers.

Newspaper features

In newspaper feature articles on scientific subjects, information is conveyed not directly by the informant but through the medium of a professional newspaper writer. The writer will need all possible help, including the provision of prepared graphic material where available. But he has his own job to do, and his own audience to address. The crucial consideration for a scientist hoping to communicate with the public by providing material for a feature is respect for the job that the feature-writer is tackling: a job essentially of popularisation.

It is vital for the person providing information for a feature-writer to know fairly clearly what audience is aimed at. A science writer, for instance, will need a different degree of information from a farming writer or a woman's page writer. It is worth the interviewee's time asking the writer to define his needs as clearly as possible: this can help to clear up misunderstandings.

Radio interviews

The essence of success on radio is clarity, brevity, and a respect for the audience. That audience, of course, cannot be assumed to have any pre-knowledge of the subject of the interview. So a special effort is needed to think clearly and simply about the purpose of the interivew, which is not to turn people into scientists but to tell them what the subject is and why it is interesting, important and relevant.

The best learning technique for scientists is for two or more of them to interview each other on tape, and to play back the result. This can help make clear that interviewing, as well as being interviewed, is a craft: that the direct and clear question, far from being abrupt or hostile to the interviewee, is often a valuable way of eliciting the necessary brief, clear answer.

The best defence against misquotation on radio, and the best method of speaking direct to the general public, is crisp and effective use of the radio interview. This is especially true in developing countries, where TV and newspapers are often available only in the urban centres.

Radio talks

If invited to give a formal, scripted talk on radio, scientists and administrators must not imagine they can simply rely on lecture notes that they use for addressing highly educated audiences. Plain, direct and colloquial speech is essential. Scripts must be read so as to sound as though the reader is talking, not reading. The craft of writing and of reading radio scripts can best be learnt by doing: writing your own script on a subject of your choice, read it to a tape recorder, play it back - and next time you will do better!

TV interviews

There are two likely formats for the sort of TV interviews participants may be asked to give. One is the quick interview - the "doorstepper", TV men call it - on the way in or out of a meeting. If this seems likely, the interviewee should prepare in his mind a quick two-sentence summing up of what he wants to say, and say it more or less regardless of the question put.

The studio interview is a slower and more laborious process. It is almost always possible to agree in advance with the interviewer the likely shape and sequence of his questions. But it is important to avoid too detailed rehearsal, for fear of seeming pat and glib. Never say - as TV interviewees so often do: "As I was just saying", referring to something that viewers have not seen. Always speak direct to the interviewer: never speak direct to a camera, unless by agreement with the studio director. Always respect the audience. If the studio lights are in your eyes, object before the interview starts.

It is important for interviewees to know in advance what technique will be used for the interview. Two methods of recording interviews are currently in common use: by electronic cameras, and by film cameras. The use of one or other will depend on the physical resources available to the relevant broadcasting organization.

Interviewees should always ask whether they are being interviewed on film, which means that what they say can be easily edited: or on videotape, which means electronically for later transmission: or live, which means by electronic cameras that transmit their electronic images direct over the air. Interviewees should invariably ask, in advance, how long they are allotted to say what they want to say: a one-minute interview for a news programme is very much sharper and more concentrated than a 15-minute interview for a magazine programme, and the interviewee should not be shy about finding out just what he is letting himself in for, and preparing his answers accordingly.

A successful interview is what the interviewer wants, as well as the interviewee: all interviewers want to cooperate with

their subjects, and are glad to give advice both on the form and on the content of the interview.

TV talks

In addition to the general considerations for radio talks (see above), TV-talks require special techniques. Always talk to the camera as if it were a friend on the other side of the table. Never feel shy of consulting a script. Do not bob your head up and down between script and camera. Keep still: all gestures and grimaces are magnified by the camera.

TV studios may (if luxuriously equipped) offer the facility of a "prompter" machine. This can take the form of large cards containing leading ideas for a script, held up below the camera by a studio assistant. This device is unnecessary: if it is offered, refuse it and make no secret of reading from a script on a lectern.

Autocue or TelePrompter machines are devices whereby a prepared script is projected from a light source onto a clear glass screen directly between the speaker and the lens of the camera he is talking to. Using these devices, if offered, is tempting but delusive. Unless you have a lot of experience in their use, prefer a script on a lectern.

Graphics and visual aids can be helpful in the presentation on television of complex information. But most television receivers everywhere are improperly adjusted, and show a blurred image. Only very bright and clear images will be clearly received. In preparing visual aids for TV, it is essential to find out not only whether transmission is in colour, but whether most potential viewers have colour receivers. (In Britain, for example, research has shown that 90 percent of viewers of Open University programmes, transmitted in colour, are viewed on black-and-white receivers: most colour images are wasted). In preparing graphic material for TV, always work closely with a specialist TV producer who will know what material will "work" on TV.