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Scientists and Legislation

Legislation that involves scientific or medical questions poses a special problem for Congress, a problem that is primarily one of communication. How can the special knowledge of the scientists be communicated to Congressmen, who, in general, have a background in law or business? To legislate wisely the Congressman must grasp the essentials of the scientific knowledge about the issue in question. What is the best way to get this information?

The time-honored way to do this—and it is not without merit—is for a Congressman to specialize in a particular committee or subcommittee that is concerned with matters pertaining to science and to attend hearings where scientists, testifying as expert witnesses, discuss the scientific implications of proposed legislation. By a long experience of this kind a Congressman may learn how to translate scientific language into his own terms and thus develop a good grasp of the relevant scientific facts and opinions.

But even for those committee members who have had this experience and many inevitably have not—it is a difficult if not an impossible task to judge the significance of the discrepancies in scientific testimony from a variety of scientists, each with a different speciality. One need only recall the array of scientists and physicians who from time to time have testified before the Joint Committee on Atomic Energy: radiologists, geneticists, pathologists, biochemists, meteorologists, physicists, chemists, and so on. Each, quite understandably, approached the scientific questions from the viewpoint of his speciality. The result of this was that differences tended to be exaggerated and points of fundamental agreement tended to be obscured.

Difficulties of this sort led the House Committee on Interstate and Foreign Commerce to try a different way of gathering scientific opinion in its survey of major diseases in 1953. Instead of relying on individual testimony, the committee, with the advice of the National Academy of Sciences, assembled panels of expert witnesses who, in the words of the committee, ". . . were given a free hand to discuss specific aspects of the diseases in which they were interested, as well as to exchange views on other matters relevant to their areas of work. . . . The outcome was an extraordinarily informative and pertinent testimony. . . ."

The panel method was found, as the quotation from the committee indicates, to be so superior to individual testimony that the committee used it again in 1955 when the safety and efficacy of the Salk vaccine was in question and also in the hearings recently held on food additives (see editorial in *Science* for 27 Sept. 1957). The great advantage of the method is that the members of the panel question each other before they are questioned by committee members. Consequently, the committee member knows what the differences and agreements among the scientists are before he asks his own questions.

The panel discussion is, of course, an old story to scientists. It is gratifying to see how well it can be adapted to a new use, the marshaling of scientific opinion in the aid of sound legislation.—G. DuS.