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## Truth or Power?

The relationship between the scientific and the political communities is one of constant mutual frustration. There is a feeling on both sides that each ought to be able to help the other. The political community is constantly faced with making what it thinks are at least important decisions. Every decision involves the selection among an agenda of alternative images of the future, a selection that is guided by some system of values. The values are traditionally supposed to be the cherished preserve of the political decision-maker, but the agenda, which involves fact or at least a projection into the future of what are presumably factual systems, should be very much in the domain of science. Bad agendas make it much harder to make good decisions and if the decision-maker simply does not know what the results of alternative actions will be, it is difficult to evaluate unknown results. The decision-maker wants to know what are the choices from which he must choose. It is not surprising, therefore, that there is a demand for a one-armed scientist or economist without that infuriating other hand.\*

There is still more fundamental cause of the frustration involved in the interaction of scientists and politicians. Science is a problem-solving subculture whose main value is truth. It is concerned with developing testable statements about the world which in turn create images of the world which correspond to what the world is really like. Problem-solving, therefore, is the main preoccupation of scientists and indeed of the professionals in general whether they be doctor, engineer, architect, or planner. The personal interest of the problem-solver, however, is not supposed to affect the solution of the problem and even though problems may involve controversy, the controversy is supposed to be settled by some kind of appeal to the facts or observations rather than to the character or interests of the disputants. Arguments ad hominem are considered very bad form in the scientific community and there is a strong ethic of truth-telling and veracity.

The culture of the political community is very different. It is dominated in the first place by lawyers who are trained to win cases rather than to solve problems. The lawyers' "problem" is not to produce testable propositions, but to win the case. For politicians, likewise, the problem is to win elections and to please the majority of their constituents. The "scientific" problem-solving which is involved in getting the best legislation or the best decisions is incidental to the larger problem of political survival. We should not necessarily blame lawyers and politicians for behaving like lawyers and politicians. It is, in fact, what we hire them and elect them to do. The legal and political subculture is not the result of pure chicanery and foolishness. It has evolved over many generations for some very good reasons. The main reason is that where decisions involve distributional changes, that is, where they make some people better off and some people worse off, problem-solving in the scientific sense would not come up with any answers. Legal and political procedures, such as trials and elections, are essentially social rituals designed to minimize the costs of conflict. The price of cheap conflict, however, may be bad problem-solving in terms of the actual consequences of decisions. So far, the social invention that will resolve this dilemma does not yet seem to have been made.

The recent difficulties in the National Science Foundation, the very doubtful position of science in the White House, the yet unfulfilled promise of technology assessment, and the innumerable frustrations of the scientific community as it tries to interact with government at the state level are all symptoms of the difficulty of cross-cultural interaction between the scientific and political communities even in the same country. It will be surprising if these frustrations do not continue. If, however, the frustrations themselves could be placed in the conflicts of problem-solving, perhaps in the field of cultural anthropology, we might at least be able to spare the participants in this interaction some of the pains of learning from personal experience.—KENNETH E. BOULDING, *Institute of Behavioral Science, University of Colorado, Boulder 80302*

\*E. E. David, Jr., "One-armed scientists?," *Science* 189, 679 (1975).