LETTERS

Technical Issues and the Adversary Process

The proposal for a science court seems congruent with other initiatives taken in the past several years to throw a variety of controversies into the mode of quasi-judicial resolution.

These initiatives generally come from those whose experience with the law is limited. Trends within the law itself are moving in other directions, particularly with regard to the involvement of psychiatrists and other expert witnesses in legal proceedings. The bruises and misunderstandings of the adversary process have led many experts either to shun the courts entirely, or else to seek to have expert witnesses made the auxiliaries of, paid by, and even interrogated by, the court itself—not the parties to the controversy or their representatives.

The proposal for a science court is an attempt to inject institutional adversary argument into the resolution of conflict on technical issues while avoiding the hazards of regular legal procedures. To borrow a phrase from earlier battles, we might say that the objectives are admirable but the methods misguided.

First, the proposal overestimates the power and efficacy of the adversary process as a means of finding a truth—even current, provisional, working, technical truth—that the "loser" will concede to be truth.

Second, it underestimates the difficulty of framing questions in such a way that they will be appropriate for resolution by adversary proceedings. The main contest, one may predict, will shift from the stage of evidence to the stage of the pleadings.

Third, it underestimates the difficulty of wording decisions in such a way that they will both respond to the questions finally framed and help in furthering the discussion of the issues of policy. Practice might develop ways of deferring, modifying, narrowing, or broadening; but acquiring those skills takes time, and exercising them uses time that the political process may not tolerate.

Fourth, it rests upon a distinction—rendered no more persuasive by frequent repetition—between facts and values. The sponsors hope to couch the important issues in such a form that they can be resolved by findings of fact, with no contamination by decisions on value. Even if it were appropriate theoretically, the distinction would not be attained in practice. Findings in the purely technical sense would have and deserve no greater authority than the latest qualified professional contributions would; their special position as answers to questions posed in the context of a current controversy would make them implicitly value-laden—no matter how dryly numerical their language—if they were to be relevant to the further stages in the larger processes of decision.

The proposal, in sum, rests upon the wistful hope that conflict conducted in the public view on difficult technical and scientific aspects of controversial issues can be leached of its political juices. Do we have to spend years, and millions, to relearn the folly of such a hope? Over the last few years, experts and laymen have found other and better ways of communicating with one another, in a variety of official and unofficial forums. The proposal for a science court appears to be not so much a useful addition to the spectrum of working devices as a quaint fantasy of technical closure in circumstances of disagreement over policies.

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The Attraction of Minicomputers

Tad Pinkerton and Larry Travis raise some valid points in their response (Letters, 15 Oct., p. 257) to Arthur L. Robinson's article (Research News, 6 Aug., p. 470) on the increasing use of minicomputers for large-scale scientific computation. However, their conclusion that the apparent economies of the minis are due primarily to inadequate cost accounting is not entirely justified. It is true that a certain proportion of the true costs of running a minicomputer never appear explicitly in the budget, and that use is made (at universities) of cheap or unpaid student labor to run these machines; but it is also true that a significant fraction of the costs of using a central computer facility do not reflect the needs of the researcher who carries out large-scale, mostly numerical calculations.

A major part of this extra cost is simply the cost of complexity. As large computers evolved to provide simultaneous service to a varied community of users with differing and often conflicting needs, both the hardware and the software, and particularly the operating system, became extremely complex. The high price of modern maxis is largely attributable to this complexity, and so is the high cost of running a computer center, maintaining the complex operating