

Letters

Hysterical Advice

I doubt that Robley C. Williams and his colleagues (Letters, 22 May) would ask for or accept President Nixon's advice in seeking a solution to an intricate problem in molecular biology. . . . The President's problem in Southeast Asia is highly technical and complex. It requires courage, also an expertise not found in baby doctors, college youths, chaplains, politicians, Nobel laureates, or even in molecular biologists and virologists, however sincere in their protest or competent in their own fields. Of course, any citizen may properly express disapproval of the war and may demand an end to it. The question, obviously, is *how*? Few scientists or politicians are qualified to tell President Nixon exactly how to end the war or to threaten him with political punishment if he doesn't adopt the dangerous run-sheep-run technique implied in those hysterical words "immediate withdrawal" used so unscientifically by Williams and his colleagues.

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Recently 44 Nobel laureates were quoted as requesting the President "simply and urgently" to take decisive steps toward a "termination of U.S. participation in the southeast Asian war" (12 June, p. 1325). It is of interest that the type of men who so punctiliously refrain from expressing opinions outside their niches in their particular disciplines should so easily be inveigled into participating in a political pressure group. They apparently assume that political competence is common to all men. Their action assumed no responsibility and contained no discussion of methods, consequences, or alternatives. Do these appellants mean that the President should issue an order today that all troops in Southeast Asia be immediately evacuated? If not immediately, when? Why? How? These are specifics that the President must consider in *his* discipline. Only now, after several years of war, are some legislators

beginning to realize this need for responsibility in advocacy, as the public must assume responsibility when it votes. Political action by authorities on molecular biology, bacteriology, and other respected categories of study is not helpful. It can be understood in students of 18 or 20 years of age. Nobel laureates should know better.

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"Loaded" Committees

Philip M. Boffey and John Walsh (22 May, p. 949) report two criticisms of the Surgeon General's Scientific Advisory Committee on Television and Social Behavior, namely, that potentially hostile critics have been vetoed and that the television industry has been given overly prominent representation on the panel.

Several pages later Nancy Gruchow reports that the President's Task Force on Science Policy has called for a doubling of NSF's budget and a more integrated management of federal support for scientific research and graduate education. The task force consists of 13 persons. Seven are university personnel and at least two others are directly associated with scientific research.

Isn't it time we looked at overrepresentation of our own "industry"?

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Education: Lost in the Shuffle

The editorial by A. Hunter Dupree (10 July, p. 131) reveals, in an indirect way, the underlying cause of the difficulties our universities now face. Education is the basic reason for the existence of the university. Public support for the

university rests on the unarticulated but fundamental premise that students can receive a superior education there. The present actions of the federal government are largely in response to the disenchantment of the public with the universities which, they feel, have been distracted from their primary responsibility for education. But Dupree's editorial and several other recent editorials and articles in *Science* illustrate the fact that education is regarded by many faculty members as only one of several diverse functions and responsibilities of the university.

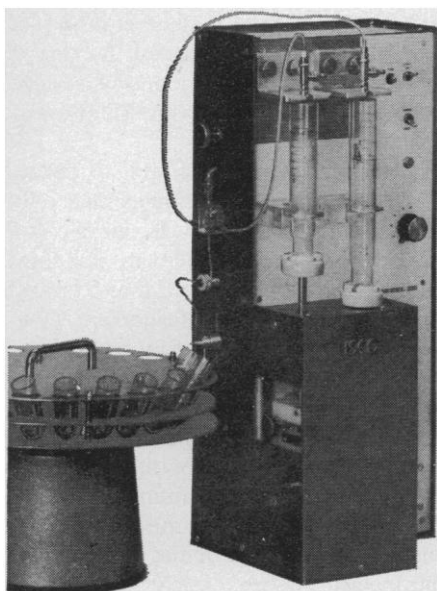
Universities would do well to devote their attention to education as their only proper endeavor. Political, moral, and social reform, for example, are not areas in which the public is willing to grant the university a role of leadership, however fervently the university community wishes it would. The partnership between government and university of which Dupree writes must ultimately be based on the concept of the university as an educational institution. I believe it would dispel much of the present confusion over the role of the university in our society if we clearly defined our educational function and critically examined other activities with the question, "Does this activity contribute to the educational goals of this institution?"

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Rational Turn to an Oracle

I was fascinated by W. Ross Ashby's letter (15 May) explaining that "chance is in no way a 'denial of rationality' . . . [but rather] the intelligent man's method of selection when he knows that the quantity of information available to him as selector is less than the quantity of selection demanded of him." Ashby hereby provides the epistemological justification for the use of the I Ching and similar systems of divination. It is the rare human decision that is based on the necessary quantity of information. Most are exceedingly difficult precisely because the information on which one could base a "rational" decision is unobtainable: Should I marry this girl? Is this the right job for me? Therefore, after subjecting one's situation to the most rigorous analysis possible (in Ashby's words, "use all that you know to shrink the range of possi-

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bilities to their minimum"), it is highly rational to turn to an oracle to terminate the decision process ("after that, do as you please" to "bring the decision to uniqueness"). In fact, failure to appeal to chance when the possibilities of analysis have been exhausted is clearly irrational, since continued circular thinking about unsolvable problems only leads to dithering and frustration.

First, the effectiveness of transcendental meditation is demonstrated (27 Mar., p. 1751). Now, the use of the I Ching seems to be rational. Is science slowly finding its way back to the wisdom of the ancients?

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Hooke's Premises

The issue of political stands by scientific societies is naturally important, but I believe Robert Hooke's letter to *Science* (17 July) decrying any political action ought to have been rejected on grounds of prior publication, for, in a document regarding the founding of the Royal Society, he states its ends (1):

To improve the knowledge of natural things, and all useful Arts, Manufactures, Mechanick practices, Engynnes, and Inventions by Experiments (not meddling with Divinity, Metaphysics, Moralls, Politics, Grammar, Rhetorick or Logic).

Anyone dead 267 years is probably out of touch with the present situation anyway.

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Reference

1. A. Pannekoek, *A History of Astronomy* (Interscience, New York, 1961), p. 250.

Vietnam: Judged by Reason

Carroll E. Izard in his editorial "The Cambodian crisis: Reason and emotion" (5 June, p. 1157) is pretty shaky in his reasoning. I object to the implication that one must abandon reason to oppose the Asian war. Nixon's Cambodian decision may indeed have been in accordance with reason, but it was based on shaky assumptions. Aristotle said 2200 years ago: "The chain of reason must begin somewhere, other-

wise it would be endless. We begin with assumptions that are agreed on, but not proven. These are called axioms, or first principles." Thus, if it can be proven, it is not a first principle. Principles cannot be derived logically, but they can be examined in the light of their logical consequences, and thus reason can assist emotion in arriving at them.

A simple assumption would permit us to withdraw from the Asian war and stay out of others like it, while still adhering to reason. This would be the recognition that a corrupt and self-serving military dictatorship such as that in South Vietnam is not preferable, either to its own people or to ourselves, to its Communist alternative. There are capitalist democracies worth defending, besides our own, in which the creation of wealth is the ruling economic motivation, such as those of Western Europe and Japan. Other so-called capitalist regimes still play the old zero-sum game of exploitation of the poor, and they do not deserve our support. Fortunately, those worth defending are strong enough not to need much bolstering by us of their regimes.

We might well consider the assumption that we could do ourselves the most good by helping those regimes which are helping their own people, without regard for whether or not they are Communist.

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Hooven has presented some cogent arguments for ending the Indochina war, but he has misunderstood a central point in my editorial. He missed the distinction between rejecting reason for emotion and allowing the emotions to play their proper role in human affairs. Hooven's rationale for ending the war is indeed admirable. I am concerned with a more general point—the need to be careful not to dehumanize our logic and reason or to deceive ourselves into thinking that being completely rational and nonemotional will end war and other human problems. Our modern age of rationalism and science has been as war-torn and bloody as the Dark Ages. Our age has produced a superabundance of rational-logical information including the "technologic" for a superkill, an Armageddon. It has failed to produce the means to predict and prevent wars. Paradoxically, it is illogical and irrational to