

# The Scholar as Government

Consultant:

# The Great Salt and Iron Debate in Ancient China

Two thousand years ago, in 81 B.C., the strains of famine and defeat caused the *literati* of the ancient Chinese Empire to be brought to the Royal Court, there to confront the Ministers of the Realm, notably Sang Hung Yang, in a great debate.

The topic of the exchange, recorded probably with only minor embellishment some years later, was the government monopolies over salt and iron manufacturing and trading, and over the transportation and pricing of most staple commodities.

These statist policies, which had been pursued now for a generation, had excited widespread opposition among the Confucianist *literati* and the "little people." The scholars, who had once been the most bitter critics of the rising merchant class, had reversed themselves upon the experiencing of the alleged wholesale profiteering by government officials and the incompetence of the new system to lead the country out of economic difficulty.

Putting aside from time to time questions of economic theory, of causes and consequences, and of public policy, the antagonists bitterly accuse each other of personal incompetence, of occupational unsuitability, and of gain-seeking. How well each knows the other's weaknesses! And the Great Debate becomes also a revelation on the role of the learned in government.

The ministers deny to the scholars, who have somehow managed to be invited to consult with the Emperor Chao-Ti, the right to criticize. Those who earn salaries of not more than a handful are not qualified to talk about government. Those who at home possess less than a load or bushel of grain are not qualified to plan things. All the scholars are poor and weak, unequipped with necessary clothes and hats. What do they know about the affairs of the state and the business of the officials? They remain poor, while criticizing the rich. They occupy a low position, and yet blame their superior . . . They criticize, praise and discuss, in order to gain name and to court the favor of the time."<sup>1</sup>

Not to be outdone, in their retort courteous the scholars make the Grand Censor "so angry that he could not talk" by questioning his personal gain from the government policies. The former private oligopolists, they indicate, are now the principal monopolists. There is no denying — nor do the ministers deny — profiteering; "conflict of interests" is of little concern to them. Officials must live well, they feel; their burdens are, after all, great.

Say the *literati*:

Relatives push each other to the front; partisan cliques recommend one another. When the father is exalted in his position, the son becomes overweening at home; when the husband is honored at the court, the wife pushes her calls into the higher social circles. You have the wealth of Chou Kung without possessing his virtue, and the extravagance of Kuan Chung without his achievements. No wonder that even paupers and cripples entertain vain hopes of quickening their pace.

The reply comes:

The Lord Grand Secretary, though inwardly perturbed, assumed an air of arrogant importance and said: "Can you, mere stay-at-home's, know anything of the toil of burden-carriers, of worries of incumbents in office, incommensurable with yours, critical bystanders? Here we sit now in the heart of a mighty Empire, with all the outlying states looking up to us for the solution of crucial domestic and foreign problems. Our minds are in a state of watchful tension, as if we were crossing a great waterway in the face of a gale, with no haven yet in sight. Thus day and night we ponder and worry over the expenditure of this great Commonwealth, forgetting sleep while in bed and oblivious of food when hungry. Statistical tables never depart from our presences; we ransack our minds ever searching to solve myriad problems. Our assistants are, of course, of mediocre ability and not fit for consultation! We struggle alone with great principles and our thoughts have turned to the Scholars with hope and expectation, as to some Duke Chou or Duke Shao, and we crave their bounties as if from some Tzu-kao. While our Secretariat manages affairs, year after year a search is made throughout the provinces and demesnes for men of high integrity, and talented and worthy scholars are recommended.

We have now convened with us over sixty of your class, oh Worthies and Literati. You who cherish so the practices of the Six Arts, fleet in thought and exhaustive in argument, you ought now to let out the flood of your light and dispel our ignorance. Come, show to us now how you disparage everything modern, putting all your trust in the past; how you discourse upon Antiquity, with never a reference to present conditions. Is it due to our idiosyncrasies that we are unable to recognize a scholar; or is it rather your habit of falsifying truth by slandering ability in your stilted tirades? How difficult indeed it is to find a really worthy scholar! From Ni K'uan of Ch'ien-sheng, upon whom was bestowed the hat of a high minister for his studies

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those I have ever seen or heard or as soaring high as recipients of Imperial favor, none has shown transcendent ability, none has helped the government in solving difficulties, none has had any merit whatever!

*The Literati:* When working as a carpenter Shu Tzu would first adjust his square and compass, then "handle and hole" would fit each other perfectly; the music-master Kuang, when harmonizing the scale, would first regulate his six sharps; then only he achieved the perfect blending of the *sol-fa*. Our present artificers and mechanics, when unable to fit handle and hole, find fault with the square and compass; and when unable to harmonize the simplest tune, begin to tamper with the time-honored musical scale. No wonder that their handle and hole are all askew and never fit each other, that their music is a cacophony of unsynchronized sounds. Now the real master artist is he who knows how to adjust square and compass as soon as he picks them up; he who knows the musical variations as soon as he begins to blow into the organ-pipe. Next comes he who follows in the beaten path and waits for the right man before starting an innovation. This explains why Chancellor Ts'ao held drinking parties daily, and Lord Ni kept his mouth shut, refusing to speak on anything.

Thus, it seems to us <sup>that</sup> those in charge of important affairs should not allow themselves to be vexed with trifles, for this leads to confusion; while dealing with small details, one should ever be diligent, for laxity leads to negligence. *It is he who has a broadly comprehensive grasp of administrative methods that is fit to become a member of the Cabinet*, says the *Spring and Autumn*; but he whose administrative methods are over-inquisitive is only fit to be the most common citizen. Now it should be a matter of the gravest concern to ministers of state when the social tenets are not disseminated and propriety and justice do not function. As to files and documents and matters of expediency, this is the business of office assistants. As the Book of History says, "In office should be the eminent, the different officers go about their work, the various artisans labor according to season, all working in harmony." That is to say, for every office the right man was secured and every man attended to his business; thus every office was well regulated without confusion arising and every affair was attended to without being neglected. Minor officers should keep strictly to their duties, higher officials should regulate their offices, while ministers of state should only take up general and essential affairs.

Therefore, for those who know how to employ able men, responsibility is shouldered without laborious effort, but with those who know only how to use their own resources, business is neglected and everything left uncompleted. Duke Huan let Kuan Chung be his eyes and ears. Thus the superior man exerts himself in his search for worthy men and takes his rest in employing them—do you see any danger in that? In former days when Chou Kung was Chancellor, he was

meek and humble, never stingy when patronizing the scholars of the Empire. Therefore, able and distinguished men filled his court, the worthy and wise thronged at his gate. Confucius, a simple commoner without rank or privilege, commanded the following of over seventy talented scholars who were all fit to become high ministers of state to any feudal prince. What could he have done in supporting all the Empire's scholars had he possessed dignity comparable to that of the Three Highest Ministers! But you with your superior ministerial rank and handsome salary, you are unable to attract scholars, as you never possessed the secret of promoting the worthy.

When Yao promoted Shun, he treated him as his guest and gave him his daughters in marriage; when Duke Huan promoted Kuan Chung, he likewise treated him as his guest and made him his mentor. For a Son of Heaven to become related by marriage to a commoner—Yao could surely be termed to be on intimate relations with the worthy; for a great prince to appoint as his mentor a commoner—Duke Huan could surely be said to show respect to his guest. This is why worthies flocked to them like a rushing stream and attached themselves to them without hesitation. But in our modern times we look in vain among those in high places for men who would show as much regard for scholars as was exhibited by King Chao of Yen, or as much delight in associating with worthies as is depicted in the poem, "With pleased sounds the deer call." We see you on the other hand, adopting the ideas of Ts'ang Wen and Tzu-shu in ignoring the worthy and envying the able, exalting your own wisdom and belittling the ability of others. Too conceited to ask for advice, too snobbish to befriend the scholars, trying to impress worthy men by your high rank and to intimidate men of scholarly attainment by your high salaries, it is indeed not surprising that you find it so difficult to secure the service of scholars!

The diatribe is not without effect. The Lord Grand Secretary, confounded, said nothing while the worthies drew prolonged sighs. Then advanced one of the Secretaries and addressed them: Tai Kung, as Chancellor to kings Wen, and Wu, made them Emperors of the world; Kuan Chung, as Prime Minister to Duke Huan, made his Lord Protector of the feudal princes. Thus when real worthies obtain high positions they are like dragons plunging into water, or soaring serpents disporting on the clouds. But Master Kung-sun Hung, when acting as Chancellor, lectured his late Majesty upon the *Spring and Autumn*, and while secure in the position of one of the Three Highest Ministers, and with all the advantages of Dukes Chou and Shao, with powers extending over ten thousand *li*, and with the possibility to set a standard for the whole world, proceeded to establish examples for the Empire to follow by never dressing in two colors and never dining on more than one dish, all with no noticeable benefit to the administration.

Reader

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Learned doctors such as Chu T'ai and Hsu Yen in accordance with an Imperial rescript, and endowed with special powers, rode through every province and demesne, making selection among the filial and incorrupt, and urging the people of the realm to reform—yet folkways and morality showed no great change for the better. We have seen also recommended scholars of the classes of Worthies, Probi and Literati suddenly raised to high rank and honor, some of them even holding ministerial posts. This is certainly doing more in promoting scholars than king Chao of Yen ever did, and wider employment of the worthies than Wen Wang ever attempted. Yet in spite of all this we never saw anything accomplished by these men. We should say that these worthies could not be exactly described as possessing talents that would lead us to compare them with dragons and soaring serpents; nor were they as commendable as those in whom the poem 'With pleased sounds the deer call' took pleasure."<sup>2</sup>

Power, whether in the hands of officials or scholars, does not bow down to words. The literati were mocked:

put down the barbarians that are fighting us, says the Lord Grand Secretary, and you can have your laws repealed. Wars justify government economic monopoly; crimes justify repressive criminal law; high responsibility justifies high returns. The scholars are nonplussed; they can show how the vicious circle develops and works, but they cannot come to grips with it. They were, as Sang Hung Yang said, "capable of speech but incapable of action." Their conservative traditionalism and their benevolent view of man and government gained them naught. The State monopolies lasted for another century.

### References

1. Chun-Ming Chang, *The Genesis and Meaning of Huan-Kuan's Discourse on Salt and Iron*. Nankai Institute of Economics, Nankai University, <sup>Tientsin</sup> China, 1934, p. 51.
2. The body of the text was taken from: Huan Kuan, *Discourses on Salt and Iron: A Debate on State Control of Commerce and Industry in Ancient China*, translated by Esson M. Gale. Leyden, E. J. Brill, 1931, pp. 39 ff. with the kind permission of the Sinologisch Instituut der Rijksuniversiteit Leiden (1e Binnenvestgracht 33, Leiden, the Netherlands).

## Economists in the United States

by Janice H. Hopper

*Economists fare better than most scientists, with a median salary of \$11,000 (and who knows how much on the side?), reports Dr. Hopper from the National Register. That research managers among them do better is also significant. Forty-two percent work in universities.*

Professional manpower time and time again becomes a matter of concern to various sectors of the American public. For over a hundred years there have been national public efforts to estimate the numbers of trained scientists available for emergency service in various of the life sciences. These "public emergency" interests have been sporadic and war-linked, in the past. More recently, the United States Congress has linked the concept of national emergency rosters or registers with that of adequate statistics on scientists, available for two-year intervals, presenting an overall picture which has many potential and actual uses. The Congressional action of 1950 created the National Register of Technical and Scientific Personnel under the National Science Foundation. Attention was focused initially on the life sciences; the present decade is witnessing the inclusion of the social sciences.

More sustained concern over time, embracing the life sciences, the social sciences, and the humanities, has informed the twentieth century activities of the professional associations and the learned societies, the foundations and the associations of universities and colleges, and the Bureau of Labor Statistics. Here, general rather than emergency needs stimulated efforts at accurate estimates of current supply and future demand. Problems of the allocation of scarce training resources across the board increasingly have been resolved, for the time being, in terms of one or another answer to the question, for each of the professional fields, "How many specialists have we, what is the current production rate; and how many will we need within the next decade?"

The question seems straight-forward enough. Even so, superficial examination, alas, illuminates its complexity. How many individuals who call themselves economists

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there, and the financing assured. Nominations of people of wealth, influence, and intellectual stature with some degree of fame are made. They are approached and recruited. At this point a staff of not-too-independent scholars and publicists is retained. The enterprise is announced with a fanfare. A gestation period occurs, during which the staff puts together the report and recommendations. The commission, committee, forum, or whatever ~~it is called~~ meets several times with some members absent. Amendments are offered. The members declare, "Why don't you say something about . . ." and "Isn't the language a bit strong here." The document is approved. Objections that cannot be reconciled to the majority view or that come in late are placed in footnotes or in an appendix, and the document is published. Depending upon the importance of the people involved and upon financing, thousands or millions of copies may be vented in several forms. Publicity releases are issued, which the *New York Times* and a few other media will dutifully carry. "Independent" leaders will praise the work. (They are likely to be on a similar committee soon.) Anywhere from 95 to 99.99 per cent of the population will not recall having ever heard of it.

What, then, are the merits of the scientoid manifestoes?

(1) They build the reputation of men among others of their kind.

(2) They let men feel that they are discharging their civic responsibilities.

(3) They help carry on a conversation among busy men.

(4) They give cues to incoherent members of the same status on what they should believe and say.

They have, however, several demerits:

(1) They take the time of scholars who have important work to do.

(2) They make leaders feel that they are acting, when they are only talking.

(3) They make some of the public believe that their leaders are thinking and active, when in fact they are not.

(4) They cost a great deal. The Special Studies Project (*Prospect for America*) of the Rockefeller Brothers Fund has cost over \$800,000 already. The National Goals Commission was granted hundreds of thousands of dollars by several foundations. The Fund for the Republic (now operating through the Center for the Study of Democratic Institutions) is down to the last couple of millions of the 15 million dollars granted it. It is not incredible that such funds might be invested in better forms of study, research, and planning.

(5) Individual voices, the best-equipped, the original scientists who were broadcasting on the same frequency, are drowned out by the chatter of the famous.

(6) Scholars are given paths bull-dozed by publicity and authority, which they are naturally pressed to follow when choosing subjects for their studies and setting bounds to their ideas.

Several recommendations can be made:

(1) Limit costs on this sort of project. Neither persons nor groups need more than a few thousand dollars to recollect and put down their thoughts.

(2) Let individual civic leaders with something to say, say it themselves.

(3) Sponsor truly operational planning—i.e., go into the next phase of civic-minded effort. Let ideas be geared to action plans. A policy science is what is intended by means of many of the scientoid manifestoes. They are, however, quite innocent of systematic policy science.

No one wants to go back to the stone age of the intellectually uncouth businessman or the parochial college. But we have had enough of "reports" and "studies" that are little more than glorified press releases. If busy, important people—whether in education, business, foundations, or government—wish to steer the ship of state, they will have to do more than telephone instructions from the ship's saloon. They will have to find ways of involving themselves more directly and systematically in the powering and guiding devices.

# A Hundred Policy Commissions

(AN EDITORIAL)

Since we customarily flatter our readership before burying it, we shall begin by saying that political scientists constitute a unique resource for consultation on public issues. Their informed opinions are available for the asking. Whether the question be national defense, water conservation, campaign expenditures, or another of a hundred topics, an inquiring agency can depend upon their help. Governments, political parties, corporations, foundations, congressional committees, and newspapers employ them to advantage. However, having curtsied to "the experts," the outsiders write political science and policy as they please. Civic "leaders," having puffed up their reputations by releasing inoperational phrases to the winds, go back to business as usual.

The increased respect with which intellectuals are heard in America has been more than overcome by a new development. Commissions, task forces, study groups, assemblies, conferences, councils, and committees—all devoted to saying the last word on an important subject—pronounce judgment on America's past, present, and future. Financed by wealthy individuals, foundations, or government funds, they combine well paid staffs, efficient work machinery, expensive printing, vigorous publicity, and a free distribution of materials into glorious effusions on the paramount problems of the republic. Lacking all of these elements, the individual political scientist is lucky if he can get a letter-to-the-editor in print. Before the echo of his words has faded from the air, he has disappeared to his next home, or to his books. He may leave the who's business to the next annual address of the president of his association, or he may join one of the aforesaid "task forces" of the new age and become identified with illustrious names and innocuous verbiage.

A poor but honest profession must protect itself in these circumstances by organizing a system of public policy commissions in several steps:

(1) Set up an initial panel of policy scientists to list a hundred important problems of government.

(2) Organize all interested social scientists into permanent commissions for each of these problems. They would publish biennial and emergency reports. Deputies, as they arise, would be a part of the report.

(3) Finance the commissions through their members, the association, and outside agencies. Each should have about \$5,000 annually, making a total of half a million dollars a year. The funds would pay for the modest staffing of each commission and for central printing, publicity, and distribution services.

(4) Initiate students into their future roles by assigning them to commissions as apprentices or interns.

The American Political Science Association should manage this large program. It can seek analogies in several quarters: the research (but not public policy) committees of the Social Science Research Council; the Society for the Psychological Study of Social Issues; the work of the American Assembly, the Rockefeller Brothers Fund reports, the Committee on Economic Development, the committees of Congress; various national and presidential commissions such as the newly formed President's Commission on National Goals; and the panels of the Association's annual convention that come and go. More significant than all of the formal precedents is the example of what social scientists already do informally: they give advice to the countless American publics in numerous ways. The task ahead is not to invent a new function, therefore. It is to mobilize, to discipline, and to engage the profession continuously in its elementary role of public service.

ABS Editorial

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## 18. EDITORIAL: Missiles and Missals

Recent shooting in Space demonstrates a perhaps temporary ascendancy of the Soviets in the missile Olympics. The Russian feat was also exemplary propaganda of the deed. Many people have been seized by panic and are running pell-mell into the arms of the foe.

A natural science priesthood is being convoked to counsel the Congress, rewrite the Budget, explain to the Press, recruit scientists at school assemblies, and model for collar ads. The new lately teems with suspect proposals regarding civil liberties, taxes, property, education, and freedom of work--all justified in the name of Sputnik. The Mechanistic; quantitative, Technocratic mania that lurks in American culture is once more loosed.

But the missile of science may only bring more missiles. "De-shevising" our schools, our economy, and our government will only make us the second strongest communist power, in place of China. We still know more about the atom, have a superior social science, possess a mightier technology, and embrace--even though sometimes uncomfortably--an ethical doctrine more worthy of man. Reinforcing and reforming

our diversified cultural front may sooner bring us to world leadership.

To this end, there is work for all. But political scientists might also offer their special competences to the resolution of the short-run problems exposed by Sputnik. For instance they might study the history of satellite and missile policy, to better answer to what, if anything, hampered various early solutions. They might organize to assess the comparative rates of new achievement in numerous fields of American and Soviet science. They might initiate a total analysis of the organization of thought of the American propaganda and economic programs abroad. They might especially study the kinds of intelligizing and operative groups that the nation needs, that is, they should do what Graham Wallas called "the organization of thought" and "the organization of will" in our country. Individual political scientists need not wait for distant, formal, and official measures in order to act. Almost any American community would appreciate an interdisciplinary and interprofessional group that would provide an appraisal and recommend a program on science, politics, and the economy.

SOME BASIC PROPOSITIONS ABOUT SOCIAL SCIENCE :  
 in Preparation for stating what Social Science  
 can contribute to Political Policy  
 (Providence, Rhode Island 1951)

1. The theory that facts are discrete entities must be abandoned. The foundation for such was reaffirmed by both Locke and Kant. Both perpetuated the ancient Greek theory of the duality of the intellectual (rational) and the sense object (empirical).
2. Next to be abandoned is the theory that one fact is as relevant as another to an unknown future scientific theory. First of all this theory posits an utterly impractical way of proceeding. Secondly, it provides an observably incorrect description of what scientists or people do. In the third place, it shows an ignorance of what facts are, if we accept the above proposition.
3. The framework for observing facts, then, does exist. In the first place, it is caused by natural and cultural accidents, in the second, by conscious needs to experiment, to test reality to find out whether "there is some truth in it".
4. In accordance with proposition #3, no science exists without evaluation, without priorities of investigation. Such evaluation is the impulse to devise operational explanations of events which will habitually be correct, which will reassure us of as many known dependencies of an event as possible. The end result is the so-called integrated theory.
4. An integrated theory resulting from an evaluational standpoint will condition values, but will be ethically neutral in the sense that it will operate neutrally for most ethical controversies (and serve all masters efficaciously). Of course, it will not be ethically neutral to so-called "insane" persons, nor to strikingly original philosophers and scientists. So far as most social problems are concerned, however, the integrated theory will be neutral.
6. The operations of social science (the integrated theory above referred to) are devoid of values in the ordinary sense of the term. A sharper distinction then must be maintained between facts per se and preferences in the study of politics. "Proof" of values cannot be induced from facts nor facts deduced from values.
7. The study of values, however, is an appropriate branch of political science and is done by fact statements in the same manner as any facts about the physical world. (We may study for example, the ideals of Plato or Aristotle, or the ideas of the man in the street).
8. Social Science can achieve an integrated theory most rapidly when it postulates a simple, coherent, and consistent value system. Then certain manipulative propositions are easier to make: thus, if you want A, then do X, Y, Z; not if you want A, B, C, D or A, B, C, 1/2 D or 1/2 A, D or etc., then do etc. This is a simple algebraically expressed difficulty: If you have ten factors each operating in respect to every other you have  $2^{10} - 1 = 1023$  a number of combinations inconceivably large.
9. Where figures are not agreed upon and are taken naturalistically, they must be 1) terribly caricatured (whence words like truth, justice, loyalty, honor) or 2) very precisely agreed upon in the instant case. Thus, A prefers candidate Jones to candidate Smith, B prefers candidate Smith to Candidate Jones. This extremely difficult state is compensated for by certain agglutinative values of which "authority" is a very important one. Thus, if court says A is right, all interpret that statement according to their own value system.

10. Political policy is a postulate of an agreed upon value (derivative of or accidentally related to any other values or value system) and the statement of the operations incident to its achievement. This involves a) the statement of a visualized future condition of positive affect to the policy-makers, b) acquaintance (knowledge) of suitable uniformities leading to like conditions, c) ordering a duplication of such uniformities in the immediate instant case.
11. The analogy between science and policy is close and, we may judge, psychologically related.
12. Political Science differs from natural science, not in using different modes of thought, not in the difference in facts and logic, not in free will as opposed to determinism, and not in the difference between scientific generalizations and applications (human and mechanical engineers must always solve the particular application of their theoretical science). They differ rather in the complexity of the relationships studied; thus, more variables are introduced by values and a somewhat greater lack of stability of events and units of data. Secondly, they differ in the importance of discrete, minute variables to the observer; thus, 1% in an election changes many lives, or the death of a ruler is in itself a shock to millions, i.e. each event may have enormous human consequences although it is unique. Too, Political Science differs from the natural sciences in view of the special problems introduced by the historicity of man. While the history must be studied, the data is oftentimes unavailable. A final distinction exists, that is, in the social disapproval present in studying human behavior
13. Since Political Science almost always must bring back its findings to some rule regarding individual conduct, it will probably always be statistical in its expression so far as that individual is concerned. Its rules will never place ~~said~~ individual exactly. *that one*

If biologists may ever have wondered about the practical import of their work in individuality and collective behavior, they can now put aside their doubts. They are being personally solicited to pay ten dollars or more to rescue from disgraceful death a typical aggregate, *Institutio Nonprofitabilis Academica Americana Biologica*.

This group, popularly known as the American Institute of Biological Sciences, was formed<sup>1</sup> by 50 member and affiliate societies, with individual memberships (many overlapping) of 80,000. Getting money out of these societies to run an office was difficult, and a mere \$41,000 was all that the best year brought. But all concerned knew that the real reason for the existence of the creation was to help biology get "its share" of federal government "research" monies. And, of course, what agency could refuse such a noble creation?

Cutting its umbilical cord from the National Research Council, the AIBS went on its own in 1954 with \$17,000 of National Science Foundation money to buy the furnishings essential to research. It had sensed the climate well. In 1956 AIBS received \$56,000 and in 1962 \$3,000,000. However, the demand for Pure Research was so heavy that the AIBS had to spend its monies fast, a little too fast. *Everyone* in research knows how much it costs to study Curricula: there are Endless Frontiers to develop in this area. Moreover, *everyone* in research knows how important it is to plunge ahead in making attractive Educational Films.

All kinds of basic scientific problems were thus being solved by the new creation. Individual biologists could hope for more courses on biology (though the other sciences were on the same dietary "kick") and for better films. The more hay a horse eats, the more water it likes to drink. So with hay and water gone, biological research flourished.

Now a critical question has been raised that is appropriate to biology: should a horse drink water before eating hay, or eat hay before drinking water? The administrators of the AIBS apparently were old-fashioned naturalists. That is, they did not regard the problem as consequential. They felt that if there are both hay and water in the stall, the horse should have his head. They wished to feed from funds of one project—the curriculum—rather than another project—the films—and believed that they could do so, especially since more funds would be coming up from both sides sooner or later.

But if the AIBS did not perceive the importance of the question of hay or water, other discerning researchers with a book-keeping ideology and legalistic training did. Whereupon the AIBS was served by the governmental National Science Foundation with notice to lay off the hay and furthermore, cough up an already eaten portion, \$331,570 worth to be explicit.

Upon realizing that it existed in the cold political world rather than in the green Elysian Fields, the poor beast practically collapsed. There it lies now, waiting for the individual biologists to revive it by contributing personally their money to activities that they had believed were desirable so long as the government paid for them. The kindly state euthanasist has deferred the threatened bankruptcy proceedings.

We are not biologists and should not give advice on whether to pay up or let the AIBS expire. And we observe that *Science* magazine, which is of biology if anything, is inclined to advise paying up. But we would pose here a number of statements and questions for scientists of all kinds to consider:

1. The National Science Foundation is a government agency, masked as the agent of free science. It does not matter that its officers are our friends and fine upstanding American citizens. They must, in the final analysis, operate as an arm of the government, emitting peremptory orders such as: "... Stop all disburse-

ments from AIBS bank accounts and agree not to make any further disbursements, except upon approval of a NSF representative." (Letter of Mr. Aaron Rosenthal, NSF Controller.) A reporter adds: "The order was promptly heeded, and for 24 hours AIBS did not write a check. The ban was then lifted to permit AIBS to pay its staff and continue the flow of money to its various projects. But all expenditures were made under NSF scrutiny, and with Cox (AIBS Executive Director) exercising no control. AIBS's headquarters staff was reduced about one-third, and virtually all purchasing was suspended."<sup>2</sup>

2. Government is sovereign and a drop of sovereignty can pollute a large batch of free science. Thus a controller can write that conciliatory proposals "are unacceptable since they are not considered adequate to protect the interests of the U.S. Government" (Mr. Rosenthal, in a letter). How those words tumble sweetly from the lips. And a large variegated operation closes down.

3. Government does not have to be consistent, and there is little recourse against its inconsistency. NSF has not up to this time required separately maintained cash accounts for its grants. Nor has it, to our knowledge, taken over a research operation before, even to rescue it from its own (NSF) verdict.

4. Government funds go in huge disproportion to safe, tangible, collective, bureaucratic projects. They often tap research talent (Cf. the 212 employees of AIBS) for second or third level scientific goals (Cf. the AIBS program, so lacking in small undirected personal projects and so much like the activities of any large pressure group in American political life).

5. Government accounting leaves no room for the basic creative impulse of scientists to follow where their intellect leads them. A list of interest or needs is apt to result in penalties of a direct kind or the often worse penalties of debilitating re-negotiation.

Those who deny these propositions should be willing to support the following statements, either on grounds that such statements actually reflect the existing situation or ought to:

1. The National Science Foundation should be split into several regional foundations, each to be given a large endowment or its own tax base and cut off completely from the government.

2. A separate and independent court should be set up to adjudicate all government scientific research contracts and grants, with the express provision in its charter that it should consider the government interest as of no intrinsic value, except as part of the merits of the case, not as sovereign.

3. Contrary to the present tendency, no government funds should be used to contract with any non-profit agency, but only with individuals or regular commercial companies. The concept of the non-profit organization has many abuses, not the least of which is the practice of making any practical job into a scientific mission by cloaking it in non-profitable terms. Thereupon the specific practical activity becomes the general, public, scientific, and educational purpose of the non-profit organization.

4. Contrary to present practice, no government funds should be granted on a project basis. Intellectually, the specific hypothesis is the soul of scientific work. But the project concept robs this soul by externalizing it into financial and administrative control.

5. Far from shrinking in fear and guilt, and surrendering, the AIBS leaders should have asserted a defense of their position. It would appear that they, not the NSF, were in the better position to seek judicial relief. In any event, they would have served science better by opening up to general discussion the obscured issues of the case.

<sup>1</sup> Formed means formally approved. Doubtless, a small group of leaders really formed it.

<sup>2</sup> D. S. Greenberg, 139 *Science* (25 January 1963), 317, at 321.

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