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The Siege of the House of Reason

Max Tishler

It seems rather simplistic to talk, as some have, about recent campus disruptions solely in terms of irresponsible youth or college administrators who have too much bone in their heads or too little in their backs. The university is under siege today as much from without as from within. The demands of our dynamic society have transformed it too quickly and under too much pressure from an important, but not central, institution into a full-fledged member of the American establishment. I propose to examine some of these demands and pressures, focusing my comments mainly on those aspects of the universities that are related to science and with which I am familiar.

First, however, let me explain what I mean when I use the word "establishment." I am not talking about a power center. The university does not make any decisions for American society, as do politicians, labor unions, or industry. The university as an institution has power only within its own confines. And groups of students have demonstrated recently that even that limited power is open to challenge.

But the university is a key institution. Nearly half our young men and women spend important years of their lives on its campus. It is the indispensable educator of skilled people without whom we could not run our complex industrialized nation. Its faculty shares its knowledge, judgment, and ideas not only with the students but with practically every facet of the culture—from experimental kindergartens to the White House. The university is the cradle of most of the basic research and much of the new technology that are powering our economic growth, shielding our republic, and transforming the quality of our lives. It is the forerunner of change, the critic of the status quo, and the guardian of objective rationality, without which both our civilization and mankind may be doomed.

Is the university doing all of these things well? Of course not. No single institution could take on so many assignments at once and stay on the Dean's list. I would pass out a few A's and B's but they would be well balanced, I'm afraid, by C's and even a few D's. Some of the tasks are mutually conflicting. No professor, for instance, can simultaneously counsel his government, conduct important research, and satisfy his students. Time is not a rubber band.

But the basic trouble that afflicts the university, it seems to me, derives from the pressures of the outside society. Take, for instance, the enormous expansion in enrollments. This puts a painful strain on the whole institution—students, faculty, and administration. It is the result of irresistible demands for increasing quantities of trained graduates by government, industry, education, the sciences, and other professions. College becomes the only gateway to rewarding jobs in the adult world. Some adults criticize student rebels on the grounds that these young people do not understand that a college education is a privilege. They are mistaken. They are thinking of the world in which they were brought up, not today's world. A college education is no longer a privilege. It is a necessity.

This is why the student population in our colleges and universities has more than doubled during the period of 1955–65, from 2.7 million to 5.7 million (*1*). Today almost 50 percent of our college-age population is enrolled in these institutions of learning, in contrast to Great Britain, France, Italy, and Germany where the percentages are below 20.

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This student-population explosion alone has brought turmoil to the crowded campus. Students now are clamoring for rights instead of privileges, and, as expected, the establishment of new rights is being accompanied by the raucous sounds of battle. The transformation of the university into a prerequisite for adult status is bound to affect scholarship and curricula as well as disturb the peace and shake the ivory tower. It has dragooned a lot of young people into college classrooms who have neither the taste nor the aptitude for traditional academic pursuits. Higher education will have to conform in some way to this new concept or alienate a large percentage of our young people.

Negroes and other disadvantaged groups, backed by a majority of our citizens, are demanding equal status, and they want it now. This means that the educational system, including the universities, is being asked to accomplish in a few short years what it should have done in the past ten generations, and would have done, had society required it to.

The outside pressures on our universities grow, not from our failures, but from the successes of our society—particularly the achievements of science and technology, which require vast, complex networks of human endeavor and legions of skilled people to run them. This demand for trained people has given rise to those immense, impersonal institutions of higher learning that are now the focus of attack. Julius A. Stratton, former president of M.I.T. and now chairman of the Ford Foundation, recently described this problem of size and impersonality as follows (*2*):

> Here we have been brought face to face, I believe, with the most perplexing and most critical problem of the modern age. How shall we design and plan and manage the institutions of a true democracy such that all are served, yet such that no individual feels lost and submerged in a sea of anonymity? How to meet the needs of numbers, yet retain a personal scale? These are questions that transcend the university. They relate to industry and the evolving structure of government. And they go directly to the heart of the problems of the city.

These outside forces—and there are many more I have not mentioned—are not only turning the campus into a pressure cooker, they are also threatening the independence of the university. I should like to examine this threat in the context of the demands upon the scientific resources of the institution.

I am going to examine the current threat to the independence of the university through the implications of an event that took place on the campus of Massachusetts Institute of Technology on 4 March of this year. M.I.T. is widely known as the leading technological institute in the world. Less widely known is the fact that it is rapidly becoming a great university with very strong departments in the humanities and social sciences.

What happened on 4 March was a widely publicized research strike organized by graduate students and several members of the M.I.T. faculty to protest the prominent position of the Defense Department in the financing of university research. There was actually no research strike. This was merely a journalistic headline invented to call attention to the protest. As some wit put it, even an M.I.T. professor could not go to day-long meetings and do research simultaneously. The protest against Defense Department research was nationally organized and took place on the same day on several campuses around the country.

This 4 March event has become familiar to many because of the now-famous speech delivered that day at M.I.T. by George Wald of Harvard, who won the Nobel Prize for medicine and physiology in 1967. The audience was moved by his eloquent address entitled "A generation in search of a future" which the Boston *Globe* said "may be the most important speech given in our time." Wald said he understood what is bothering students and why the present generation of students is beset with profound uneasiness about whether it did indeed have a future. He went on to attack government policy-makers and the military establishment for having led these young people into such a trap. *The New Yorker* devoted the whole of its "Talk of the Town" to a slightly abridged text of this speech (*3*).

Most of the speeches were directed at campus research financed by the military. The speakers brushed aside the argument that practically no campus research these days is classified and that, even at M.I.T., most of the Defense Department funds go to professors in the physical and social sciences to do research in areas which they, not the Defense Department, want to study. In the long run, it was said, he who pays the piper calls the tune. Government funds were undermining the independence of the university and forcing scientific resources into areas of government interest rather than those of interest to science or the nation as a whole.

In a way this was the argument, in a different context, about the distortions in national priorities brought about by the Vietnam war. To simplify it, it was whether we should devote scientific talent to new weapons or to such pressing domestic problems as purifying the air and cleaning up the unholy mess in our cities.

Government funds have also been attracting the allegiance of the faculty away from the university and the students and toward the important and interesting concerns of Uncle Sam. This point was made rather cogently about a year ago by Admiral Rickover in the following statement to the Senate Foreign Relations Committee (*4*):

> I believe Department of Defense research sponsorship is partly responsible for the troubles on our campuses. . . . The professors are often off campus, traveling from one place to another under Government contract, attending panel meetings, consulting, doing research in foreign countries, all at Government expense. It is not surprising that the students feel they are being shortchanged by their professors. This surely is at the root of some of their unrest. . . .

The background for these arguments is that government has become the dominant patron of science since World War II. It is now financing approximately three-quarters of all the research and development done in this country. It supports an even higher proportion of university research, and, as a result, a startlingly high percentage of total university budgets. Though much of the basic research on campus is done through grants from the National Science Foundation, and thus is mainly controlled by university people, most of the total research is done to carry out the priorities established by Congress, which has a firm grip on the purse strings.

The events of 4 March may seem a mild affair. The discussion that day was highly rational. No buildings were occupied. No weapons were brandished. And the only picket was a Polish-American who visits all such affairs in the Boston area, carrying an American flag and a sign that urges the government to wipe the Communists off the face of the earth. At one point he invaded the auditorium and coaxed many in the audience into singing the "Star Spangled Banner."

Although 4 March was not a day of militancy and confrontation, it had a profound meaning for many scientists and their academic colleagues. This meaning was related to the drastic changes in the scientific community which have occurred since the late 1940's. Some of these people believe that scientists, once masters of their fate, are now victims of the very system that spawned them. This view was expressed in extreme form by Alan Chodos—a graduate student at M.I.T. and a leader of the Science Action Coordinating Committee, which organized the 4 March program—in a recent review of the book entitled *Men Who Play God* by Norman Moss (*5*):

> The scientific community has mushroomed in size, but the function of the individual scientist or engineer has dwindled to the point where he resembles a single cell somewhere deep inside the nervous system of the military-industrial complex.

Now let us look at the implications of 4 March from Washington's point of view. World War II was won largely by the scientists. World War III has so far been prevented only because the scientists—a high percentage of them connected with universities—have helped to keep America strong. Many of the best of them want to remain on university campuses, because they like to have young people around to keep them on their toes, because they prefer the variegated intellectual atmosphere, or because there is no position in our culture quite so independent as that of an eminent professor with tenure.

The country counts on these university scientists for its security. And yet some of them are beginning to ask some penetrating questions about military-supported research. A few of them might refuse to take any more Defense Department money, even though this might mean a loss of funds and as a consequence, loss of many of their graduate students and much of the equipment they need to do research. Suppose this became a sizable movement? Would this hurt our national security?

I, for one, am not sure it would—not, at least, in the short run. The military has the resources to develop alternatives, just as it may have to create an alternative to ROTC. It can expand the independent off-campus research laboratories now in existence or build new ones. If it has to, it can make employment by these laboratories attractive enough to lure away from the universities the talent that it needs. This is the way the Soviet Union operates. There are many who think this would be an unfortunate development; it would rob the universities of some of their more creative minds.

Now let us look at the implications from the third point of view—that of the university. As I have said, the university performs many functions in our culture. Two of its most precious are these: it is the home of free inquiry and it is the only truly independent center for rational criticism of the society. We need to keep both if our form of civilization is to survive.

What happens to the home of free inquiry if it depends too heavily on Congress for the support and direction of its research? Scientific research can no longer be conducted in an attic. It requires elaborate equipment, skilled technical help, and large sums of money. The only realistic source of the billions of dollars that are needed is the federal government.

In President Eisenhower's famous farewell address in which he warned us about the power of the military-industrial complex, he also said (*6*):

> The free university, historically the fountainhead of free ideas and scientific discovery, has experienced a revolution in the conduct of research. Partly because of the high costs involved, a government contract becomes virtually a substitute for intellectual curiosity. . . .
> The prospect of domination of the nation's scholars by federal employment, project allocations, and the power of money is ever present—and gravely to be regarded.

Unfortunately, Congress is not likely to regard very gravely the prospect of congressional domination of the nation's scholars. It has shown little disposition to appropriate funds for research unless it is convinced that the research will further the mission of one or more government agencies. Thus the home of free inquiry needs the kind of money only government can supply. And the government will supply money for free inquiry only in areas that interest it.

This looks like a closed circle with no visible escape. But I doubt if the future is quite so bleak. We should remember that government needs the resources of our universities as much as our universities need the resources of government. Somewhere within this equation the independence of the universities can be worked out. One solution might be to persuade Congress to give lump-sum grants for teaching and for research to the universities and let their faculties decide how it should be distributed, to whom, and for what purpose. Congress, however, does not easily delegate the spending of the taxpayer's dollar. And it likes to be able to pull back the funds when it disapproves of what is going on.

Now, what about the other precious function of the university—that of the only truly independent center for rational criticism of the society? I am sure there is no one in this group who doubts that we need such a center. I am also pretty sure that there are some—particularly among the young people—who believe that it does not now exist; that the university has degenerated into a willing tool of the status quo. For those who feel this way, I am not going to try to rescue the university from the warm embrace of your conclusions. But let me point out two recent events.

First, I refer you to the 4 March episode about which I have been talking. The criticism that day came from the campus of a university—M.I.T.—that is currently the third largest recipient of government research funds. Second, I would like to point out the ABM controversy which has been dividing the Senate and separating the White House and the Pentagon from most of the scientific fraternity. The momentous question was whether we should go ahead and build a multi-billion dollar antiballistic missile system. Some of our scientists have said that it will not work and others have attacked it on the grounds that it will do nothing more than further escalate the arms race. After this escalation is all over, they add, both the Soviet Union and the United States will end up in about the same relative position, despite the expenditure of vast new sums that could better be devoted to the solution of critical domestic problems.

The criticisms I have just listed have been coming most vociferously from university scientists who depend on government funds for their research. Every single science adviser to a former President of the United States—Republican and Democrat—has come out at one time or other against the present Administration's plans for the ABM. All of these men are university people. Apparently there is still a little independence around.

But the signs of future trouble are all about. The simple days are over, when the university could remain isolated, somewhat estranged from the rest of us, and, from its ivory tower, point the way toward its own version

of truth. We now live in a society that is so complicated it cannot exist without almost total mobilization of brain power. And the modern university is much more than the custodian of the accumulated wisdom of the past, transmitting to each successive generation what is then judged to be the best that man has conceived and performed. It is not only the primary wellspring of new knowledge, it is also the primary stimulator of change. It is for these reasons that demands for service have converged on the university from all sides: federal, state and city governments, industry, the professions, and voluntary organizations.

The university has developed considerable strength to resist attempts by outsiders to twist its arm, even in response to the popular will. The Joe McCarthy era is not very far in the past. At that time the Senator had almost succeeded in bewitching the country with his fantasies about domestic Communists and he had the Congress and most of the federal agencies pretty much cowed. But the best of our universities stood up to him.

So much for power plays against independence from the outside. What about power plays from inside the campus walls? For the first time, violence is being used by members of the university community to influence decisions and to bring about rapid change. Even if we assume that all this change has been both constructive and overdue, what about the tactics being used to bring it about? Are the needs for change so great and so immediate as to justify the glorification of force over reason on our campuses? Is it merely upsetting to defenders of the status quo? Or is it threatening to break down the barriers that have been built so carefully over so long a period to protect the university's independence? Once you invite the state onto the campus to quell disorder, will it stay to quell dissent? This is not an idle question, as anyone knows who has been reading the speeches and legislative proposals of congressmen and governors.

It is abundantly clear that the university is being pushed into the vortex of our sociological morass with unrelenting demands for its participation in changing the basics of our society. We now realize that no academic institution can ignore the question of relevance, nor can it resist the responsibility to take part in the resolution of difficulties which affect the welfare of the community and of our society. The question is how it can serve its primary function—teaching and scholarship—when new commitments to society create a totally new world for academe.

One thing above all else must remain strong on our campuses if the universities are to serve society beneficially. This is the freedom to speak one's mind and the freedom to participate in responsible dissent. This is the basis of the long, hard battle for tenure fought for by university professors which allows them to behave as scholars and critics without fear for their jobs.

But the best protection for the university—and thus for all of us—is the openness and pluralism of society as a whole. If we continue to relish the fresh air of new opinions—no matter how hard they are to take; if we refuse to become submissive to authority, just because it is authority; if we continue to listen to reason, sweet or sour, instead of becoming consumed by the righteousness of our own feelings; and above all, if the university is willing to fight for its independence and we are ready to fight alongside it, I believe all will be well.

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NEWS AND COMMENT

Ernest J. Sternglass: Controversial Prophet of Doom

Ernest J. Sternglass, professor of radiation physics at the University of Pittsburgh, has a startling and alarming theory. He believes that low doses of fallout from nuclear weapons tests may have caused more than 400,000 infant deaths and more than 2,000,000 fetal deaths in the United States since the early 1950's. Few reputable scientists believe Sternglass has the evidence to support his contention. But that hasn't stopped Sternglass from making an unusual public impact. Indeed, for a man who is so widely regarded as wrong, Sternglass has achieved surprising exposure on the nation's airwaves and in the mass media.

Thwarted in his efforts to win scientific recognition for his theories, Sternglass has increasingly chosen to take his case directly to the public. He has injected himself into presidential politics and the recent ABM debate; he has appeared on such influential television programs as the Huntley-Brinkley Report, the Today Show, the CBS Morning News, and Martin Agronsky's Washington; and he has authored an article entitled "The death of all children" for *Esquire*, a mass circulation magazine that published his piece in record time without bothering to check whether the theory was regarded as scientifically sound.

Despite his efforts to influence public policy, Sternglass seems to have had no measurable impact on either the 1968 presidential election or the recent ABM vote. But there are some intriguing hints that his disputed theories may have played a part in the behind-the-scenes maneuvering that led to the 1963 atmospheric test ban treaty. And Sternglass has a way of popping up in all sorts of state and local issues. He appeared as an "expert" witness in a recent court suit that sought, unsuc-