Myths are not without their purposes. Both professors and institutions of higher education benefit from a vision of academic life that is grounded more firmly in myth than in history. According to the myth created by that traditional vision, scholars pursue research wherever their drive to knowledge takes them, and colleges and universities transmit the fruits of that research to contemporary and future generations as the accumulated wisdom of the ages.

Faculty members use the myth to justify the pursuit of research interests that may not result in new products or a clear competitive edge for their university. Institutions of higher education use the myth to justify a tax-exempt status and to solicit funds. The institutions argue, correctly, that they are the only institutions in modern life—public or private—that have as their primary business such a heavy component of public service. They are involved not only with creating a growing base of knowledge for society, but also with providing public access to that base—all without seeking a profit.

Yet the economic and social forces operating on colleges and universities as institutions, as well as on the interests of faculty members within them, are making the myth embodied in the traditional ideal of the academy more and more difficult to sustain. Questions about what an institution of higher education ought to be, about what professors ought to do, and about what relations professors ought to have to the...
Institutions which employ them are being raised and pushed to the fore. These are not theoretical questions, but practical questions of immediate import that must be answered relatively quickly—and wisely—if institutions of higher education and professors are not to find themselves inextricably in the grip of forces they cannot change. The myth of disinterested academic research—however beautiful, and however beneficial—is under siege.¹

I.

Institutions of higher education face the same economic problems as every other institution in society. But more importantly, while it may once have been true that pure academic research drove technological development, technology no longer waits for serendipitous theoretical discovery.² Technology is banging at the door for what it needs—answers to questions raised by prior technological development and the theoretical means to assure faster development in the future.

Such demands may seem to issue primarily from profit-seeking corporations, concerned about maintaining their competitive edge, but they are in fact coming from all sections of a rapidly progressing society. The demands are such that little difference is perceivable among them. Corporations seek to increase their competitive edge. Regulatory agencies desire to correct or avoid the excesses of earlier developments and to keep abreast of new ones. National or local governments want to stay strategically ahead of whatever competitors they may perceive. In short, technological advance is in the driver's seat. If universities cannot satisfy these demands, they will no longer be able to claim that they are even in the intellectual vanguard, let alone that they are in the lead.

In such an environment, universities have sought to keep their heads above water through partnerships with industry and government. Sometimes these partnerships consist of consortium arrangements among several participating institutions, and sometimes an arrangement between a particular university and a particular corporation or governmental agency. Whatever the arrangement, one thing is clear: the state-of-the-art scientific and technological research that universities have always specialized in is, in the contemporary world, far too expensive for any university to conduct alone.

More importantly, the problems that make it necessary to push theory and application to new levels are often more clearly perceived by users than by pure theoreticians. Cooperation between researchers and users is necessary if researchers are to have a clear idea of what theoretical

problems are most pressing. Thus, universities have created relationships with outside institutions and agencies not only for purposes of funding, but also for purposes more intimately related to the problems of pure research. Such relationships seem necessary even from the perspective of the academy.

Equipment is one of the most expensive aspects of science. Developments in science are always marked by developments in equipment; each new theoretical advance carries with it the possibility for, and necessity of, new instrumentation. Currently, one cannot teach biology without the capacity to separate DNA molecules. In physics, our capacity to examine subatomic particles has produced both the need for and the capacity to produce enormously expensive clocks that measure incredibly small increments of time. A physicist trying to work on the cutting edges of science, or trying to teach the physicists of the future, cannot be without access to this equipment.

The costs of the continual replacement and refinement of this equipment are enormous. One can measure both how great the need is and how little institutions of higher education have to spend on equipment by how upset the academic scientific community is over recent budget cuts in the small-instrumentation program at the National Institutes of Health (NIH). The NIH has cut this budget sixty-nine per cent from 1991. The result, it is claimed, is that the infrastructure of science will deteriorate because no other sources of funding are available. Although the original budget is small in comparison with the total amount spent on research and development, it represents a large sum when compared with the normal budgets of the universities needing such instrumentation.

The same is true of the total spent on research and development. In 1989, American industry spent $71.77 billion on research and development, and the state and federal governments spent $68.72 billion. Only a small portion of these amounts goes to institutions of higher education. For instance, the Federal government proposed a 1992 budget of $11.5 billion for research at universities. Although this is a small percentage of the total 1989 budget of $140.49 billion, it represents a large amount when compared with normal university budgets. Most universities would look at the $231 million Stanford is accused of overcharging the Federal government from 1981 through 1988 and wish for a small portion of that to add to their normal budgets.

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on smaller institutions of even a little extra money can be enormous. For example, the $3 million extra per year LeHigh University has obtained from 1984 through 1991 through its Ben Franklin Center constitutes a good percentage of the budgets of many universities.7

Universities increasingly need more funding as the total is decreasing. Though funding for research and development increased dramatically during the 1970s to a high of $154.31 million in 1989, the total fell to $151.57 million in 1990 and is projected to continue to fall.8 Additionally, the irregularities associated with university funding will likely lead to a tightening of the federal rules on indirect cost. The vagueness of these rules is claimed to have "invited opportunist interpretations"9 and possibly the $350 million in overcharges claimed at 22 universities. Thus, the total funds available may continue to fall.

The concern about competition from abroad, however, especially with recent reports that the Japanese are already spending more on research and development than the United States, may well reverse the downward trend of funding.10 Still, individual states are cutting back their spending significantly because of severe economic problems.11 The result of these factors is that many institutions of higher education, faced with their own financial difficulties, are either entering the competitive market for research funds for the first time or expanding their existing programs with renewed vigor.

As more institutions of higher education chase fewer dollars, some institutions are bound to have problems. Sorely needed dollars may be diverted to create a research institute in an attempt to pull in money to help the general state of the institution. Problems result as these universities often end up with little, or nothing, to show for the invested funds. Yet the demand for such funding still exists within institutions of higher education; such institutions cannot continue at the forefront

8. William J. Broad, Research Spending Is Declining in U.S. As It Rises Abroad, N.Y. Times, Feb. 21, 1992, at A1, A16. The difference for the total amount spent in 1989 from the previous quoted figure of $140.49 million comes, apparently, from Broad’s calculating the total in constant 1991 dollars to discount the effects of inflation.
9. J. Dexter Peach, an assistant comptroller general at the General Accounting Office, quoted by Blumenstyk, supra note 6. at A25, A36.
10. Disputes about how much Japan is spending vis-a-vis the United States turn on how to calculate exchange rates. By the standard rate, the one any tourist pays, Japan is spending almost as much as the United States. By a rate the federal government uses, in which a dollar is worth 204 yen instead of the (relatively) current 134 market value, Japan is spending nowhere near as much. Clearly, simple comparisons can mislead. As a percentage of their gross national product, Japan has been spending more than the United States on research and development for years. The concentration upon Japan can mislead as well. What is ignored is that Germany is also spending significantly more than the United States as a percentage of its gross national product and has been doing so for a long time. See Broad, supra note 4, at C10.
of research without massive amounts of money from outside sources. The sense that industry and the federal and state governments are going to have to provide such funding continues to grow. As a result, academia looks far different today than it looked even as little as forty years ago.\textsuperscript{12}

The Massachusetts Institute of Technology (MIT) reflects a small measure of the difference in academia. MIT currently registers over one hundred new patents a year, with a 1991 success rate in licensing of fifty-three percent. The average at most university and government laboratories is less than one percent. MIT's researchers do not just do research and publish the results for all to see, but produce carefully guarded ideas which the institution then patents and markets. Given the traditional perspective of universities and faculty, MIT looks more like a corporation engaged in the relatively profitable business of producing ideas that it licenses to the highest bidders.\textsuperscript{13}

II.

This brave new world of academia has grown up relatively quickly and quietly. While there are strong historical antecedents for the present cooperation between universities and government and between universities and corporations, the recent growth of contemporary partnerships between universities and external sponsors has been phenomenal. There is every reason to expect the pace to accelerate in the future.\textsuperscript{14}

As with any fast-paced change, there are growing pains. Stanford University's difficulties in charging what the government has deemed to be millions of dollars in unwarranted overhead have made the national news. The Rochester Institute of Technology (RIT) has hit the pages of national newspapers and international magazines because of its relations with the Central Intelligence Agency (CIA). To be as charitable as possible, the problems these two institutions face come

\textsuperscript{12} A recent film sponsored by the National Science Foundation entitled \textit{A Partnership for Competitiveness} gives one a sense not only of how things have changed, but of the general sort of justification given for the change. The film examines five engineering research centers throughout the country funded and otherwise supported by industry. The theme of the film is clear from its opening remarks: "Americans have always been competitive," shown against a background of an American runner winning a race and another American playing in a piano competition. The voice-over goes on to say that America must "compete as a nation for world markets and standard of living" and that "for this global competition there is a new American team. The players are the nation's industries, universities, and our government." A Partnership for Competitiveness [produced for The National Science Foundation by The Magic Lantern 1990].


from inadequacies in institutional policies regarding funded research.15 In solving such problems and avoiding them in the future, academic institutions must face head-on the conflicts of ethics and values raised by this new world of cooperation among academia, business, and government.

The recent decision by Judge Harold Greene in Board of Trustees of Stanford University v. Sullivan16 cuts to the core of one crucial set of issues. A contract between the NIH and Stanford University "require[d] researchers to obtain government approval before publishing or otherwise discussing preliminary research results." NIH's argument was that if public funds are to be spent on research, there must be public accountability which, NIH claimed, implied that funded researchers were not even to talk about their preliminary findings without governmental approval. Judge Greene held that the NIH's prepublication review of any speech or publication produced as a result of an NIH grant violated the First Amendment right to free speech.

The potentially chilling effects of NIH's position on universities and university research are obvious. Research proceeds by discussion, by the sharing and probing of one's judgments and results—preliminary and otherwise. If the university is to be an open forum committed to the pursuit of knowledge, it cannot allow such prior restrictions on the normal and necessary discourse among participants in the research process.

Yet one can easily imagine situations in which such restrictions seem appropriate—whether imposed by governmental agencies or by corporations. In addition, the facts of modern life in any highly competitive area of research indicate that—far from the hearty liberal discussion and sharing envisioned in the academic myth—university communities are by now very much at home with the near frantic secrecy often deemed necessary by scholars to preserve and protect their various personal proprietary interests in their own research.18

Why would a corporation fund research in an area of commercial concern and yet allow the results to be discussed openly, thus risking that its competitors could gain the commercial advantage of the discoveries, without the expense? Prohibiting altogether the kind of restric-

15. Stanford claims that its problems come primarily from the federal government having ignored memoranda of understanding between the two governing how indirect costs are to be calculated. See Blumenstyk, supra note 6, at A25, A34. The point we are making is that, whatever the details of the dispute, better policies may very well have prevented the problems from arising in the first place.
17. Id.
18. See Tom Beauchamp, Ethical Issues in Funding and Monitoring University Research, 11 Bus. & Prof. Ethics J., 9-11 (1992) (on ethical issues raised by potential conflicts of interest in such settings).
trictions deemed necessary by sponsors would certainly inhibit funding, whether by governmental agencies, like the CIA, which may require secrecy in the interest of what is perceived to be national security, or by corporations concerned to protect vital commercial interests. Patent law provides some protection against domestic competition, but in an international environment, where corporations often operate, such protection may seem rather slim.

Harvard University’s policy, for all intents and purposes, simply prohibits research done on its time or using its facilities that cannot be published. The rationale is that an institution of higher education cannot sustain its position as an open forum for the discovery and dissemination of knowledge unless all research is publishable. The price of such a policy is the loss of some research monies, a price Harvard presumably can afford to pay. Yet other institutions, without an endowment as large as Harvard’s and perhaps lacking Harvard’s intellectual prestige, do not have that luxury.

Besides, prohibiting research cuts against another core value of any academic institution—the autonomy of its professionals, professors, to determine what research they ought to pursue. Indeed, prohibiting professors from pursuing particular avenues of research on the basis of some ideal about the value of a university being an open forum is arguably itself a form of prior restraint. It is a restraint that not only denies the academic freedom of professors, but also impedes universities and colleges from nurturing new knowledge.

Institutions of higher education, it seems, cannot have it both ways. They cannot claim to allow professors to pursue knowledge, wherever such a pursuit may lead, and at the same time prohibit professors from accepting grants that mandate certain restrictions on their free speech or their rights of publication. Further, in prohibiting restrictive research contracts, universities risk harming their long-term interest in obtaining outside funding for research that would otherwise be too expensive, thus endangering their putative position at the forefront of knowledge.

It would seem that a university’s goals of being 1) an open forum and 2) at the forefront of knowledge cannot both be met without compromise, given the necessity for outside funding to pursue research. The compromises that various institutions of higher education have made between these goals are collapsing under the pressure of technological development’s insistent demands for particular varieties of pure research and under the weight of the massive funding required to do that research. Given the current climate, it is imperative that universities recognize the need for change. In order to be meaningful, this

20. For further discussion of this issue, see Nicholas Steneck, Whose Academic Freedom Needs to be Protected? The Case of Classified Research, 11 BUS. & PROF. ETHICS J. 17, 24-30 (1992).
change must begin with the examination of what have been until now their sustaining myths. There will be a clear loss if the university preserves its traditional open forum at the cost of sacrificing its intellectual leadership. There will be an equally clear loss if intellectual leadership is secured at the cost of the open availability of new discoveries for public scrutiny, discussion, and education.

Faculty, it seems, cannot have it both ways either. They cannot be free to pursue whatever contracts they want, whatever the restrictions, and at the same time retain unlimited access to the research results of others who may also contract to do research under restrictions. The myth of academicians working at the cutting edges of knowledge, free to hire themselves out to get the funding to push against those edges, is itself an unstable compromise. Professors cannot fully retain both 1) the conditions of open inquiry required to ensure viable research (and properly generated research questions) and 2) the academic freedom to do whatever they wish, including accepting grants with restrictions on publication and dissemination of results. In addition, if professors accept grants restricting them from adding to the public store of knowledge and if institutions of higher education adopt policies that permit them to do so, neither professors nor institutions can hold themselves out as unsullied bearers of the academic traditions of open inquiry, open debate, open criticism, and open contribution.

In short, the issues raised by funded research are major issues of public policy that involve difficult choices between competing values—whether to prefer academic freedom, even if it includes the liberty to make contracts with restrictions on speech or publication, or to prefer the ideal of openness which would seemingly preclude such contracts.

III.

The choices that need to be made have implications for broader issues. For instance, professors are hired as employees of universities and remain employees subject to the restrictions their employers impose on their work. Professors, however, are also professionals who were hired because of their disciplinary expertise. They are historians, musicians, philosophers, and chemists first, obligated to pursue their professional inclinations as part of the conditions of their employment. They, not the institutions that employ them, are the experts in matters concerning the appropriate course that research—and education—should take.


Another helpful article in this regard is Rebecca S. Eisenberg, Academic Freedom and Academic Values in Sponsored Research, 66 Tex. L. Rev. 1363 (1988).

22. See also Steneck, supra note 20.
The conflicts that arise regarding funded research are symptomatic of the more general issue that arises for any professional working within and for any institution. How can one maintain one’s professional integrity while acting as an employee of an organization which may, for good or bad public policy reasons, prohibit or constrain activities that one thinks essential?

It would be overdramatic to call this an issue of conscience. Professors are not the only professionals faced with hard choices because they find themselves within organizations that can and do constrain their professional choices. Physicians who work at hospitals may find themselves unable to do what their conscience requires—like provide abortions or provide free surgery for those without the resources to pay—because of restrictions imposed by the institution in which they must work. Lawyers may find themselves unable to do what they feel obligated to do as professionals—like provide substantial pro bono work—because the firm that employs them requires too much work on remunerative projects to leave time for other work.

Any solution to the problem of how professors ought to exercise their professional autonomy within the setting of institutions of higher education will affect how we ought to think about the autonomy of professionals in other settings. The reasons one gives for a solution, and the sort of choices one makes between the competing values, will find a home in other competitive situations in which similar values are at issue and will have implications for medical practice, legal practice, and professional practice in general. Such reasons and choices have precedential value. If the reasons are powerful enough and provide a broad enough conception of the role of professionals, they ought to provide a basis for a more general understanding.

The broader implications regarding the proper role of public institutions are also a concern. Universities have a monopoly on the dissemination of knowledge and skills to future generations and serve as gatekeepers for the professions. One cannot practice medicine, for example, without a medical degree from an institution of higher education.

Universities are given such a monopoly because of the perceived benefits to the public. The monopoly also yields manifest benefits to the institutions. Yet one could argue that institutions are granted monopolies only on the presumption that they also have certain obligations. Thus, when a publicly supported institution engages in profit-making research that prevents it from doing what it is given a monopoly to do, one must ask whether it deserves the monopoly and what sort of institutional arrangement would best serve the originally envisioned purpose. These questions are complicated by the need for external funding to pay for otherwise unaffordable research.

The answers will have implications for other public institutions, particularly those that are granted monopolies for various public services. We grant monopolies to hospitals to provide for the public health.
We support these monopolies through a health care system that provides payments to hospitals and requires surgeons to work through hospitals. Careful periodic consideration must be given to our deliberate sustenance of all such monopolies. If we find that hospitals are run primarily as profit-making organizations, we may want to ask what sort of institutional arrangement would best serve the public need for health care. It is no more obvious that a hospital system devoted to earning profits for its stockholders and its employees, including health care practitioners, provides the most appropriate institutional vehicle for caring for public health than that institutions of higher education with a heavy commitment to profit-making research provide the best vehicle for increasing the sum total of public knowledge and passing that knowledge on to future generations. It is even less obvious that retention of the monopolies that benefit such profit-seeking organizations deserve public support.

Public institutions, such as universities and hospitals, are labeled public because they exist to serve a public interest in knowledge and health care. Yet these institutions are human artifacts that can be changed if they fail to serve well the public ends they ought to serve. When such institutions rest on a collection of beliefs about their purpose that is itself in internal conflict, as is the case with institutions of higher education, change will occur no matter what.23 With the uni-

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23. It is not unusual for an institution to exist for a long time despite internal tensions and then for those tensions, under external pressures or from the buildup of heat from the friction, to cause the whole to alter fundamentally. Gordon S. Wood argues that the American revolution was indeed revolutionary because it fundamentally altered the social relations between people, and it is the crucial premise in his argument that "Colonial society was ... in tension, torn between contradictory monarchical and republican tendencies." GORDON S. WOOD, THE RADICALISM OF THE AMERICAN REVOLUTION 124 (1992).

It may be argued that the resolution of that tension was not completed by the Revolution and that the United States existed under a conception filled with tension between its stated ideals of equality for all citizens and its acceptance of slavery until the Dred Scott case attempted to resolve the tension by, among other things, denying that slaves could ever be citizens. The result was a Civil War that produced a fundamentally altered relation between citizens and the Federal Government.

It could be argued as well that one problem with the Meech Accord rejected by the Canadian provinces is that it covered the tension of having a separate and somewhat independent province under that vague Constitutional phrase, "a distinct society." That phrase, it could be argued, might hold the nation together for some time, but ultimately would not resolve the tensions inherent in having one province holding such a unique position in a nation of supposedly equal provinces.

The general thesis is that social institutions rest on conceptions of their point that may be internally incoherent, or in internal tension in some other way, that accommodations to the competing demands are always made within a social institution, and that those tensions will work themselves out thoroughly when the right conditions prevail to make intolerable their co-existence, even with those accommodations. Our claim is that the traditional myth of the university is a multiply-based conception of the relevant kind and that the right conditions may now prevail for the dissolution of some of its internal conflicts.

We neither applaud nor condemn this change, only mark it.
versities' increased need for external funding and with the concern that restrictions contrary to the supposed ends of furthering public knowledge will be imposed as conditions for such funding, the traditional view of academia has reached a point in which the tensions among the components of its self-conception have become evident. These tensions will be resolved in one way or another over time; the only question is whether we shall intelligently resolve them, with clear ends in mind, or whether they will resolve themselves, willy-nilly through the individual decisions of the various participants.

Thus, the problem we face goes beyond the fact that various elements within our conception of the university are in tension and that we must make hard choices between competing values if we are to exercise a measured control over the inevitable change. The sorts of choices we make and the kind of reasons we give will have a gravitational effect on other public institutions facing similar tensions. The question we must ask is how to proceed.

IV.

The ideal resolution would be cleverly to restructure the essential components of our conception of academia, with a slight twist here, a judicious cut there, reconfiguring in such a way that the most important values no longer compete, but, as in the best of cases, further each other. But the values in competition are so at odds with one another that "finessing" their conflict does not seem possible. One cannot, for example, make the autonomy of professors regarding funded research absolute and at the same time guarantee that universities will continue to be primarily committed to the increase of public knowledge. Some sort of compromise must be made.24

Yet no noncontentious theory will allow one to choose between the competing values. One may argue for the efficiency of letting individual professors decide for themselves what research to accept. One may buttress that argument with a claim that without evidence to the contrary, professors ought not to be presumed to harm university values.25 Such an argument presupposes a more general argument about what sorts of presumptions ought to be made when individual freedom of choice is at issue. The implication, which needs argument on independent grounds, is that the professor's freedom of choice counts for more than the public's interest in a certain kind of university.

Similarly, one might argue that the public's interest is more important than the freedom of choice of individual professors. Presumably, insti-

24. We are not denying that accommodations have already been made. For instance, professors keep the royalties for books and articles produced on university time. The point we are urging is that such accommodations, made singly without much thought to their long-term consequences regarding the structure of institutions of higher education, are no longer sufficient.

25. This is Steneck's view. Steneck, supra note 20.
tutions such as Harvard are willing to provide such an argument. In either case, one is presuming a way of weighing the competing values. No noncontentious theory provides a decisive and determinate method of weighing such things. In this respect, the problem with which we wrestle resembles many other public-policy issues.

One might address the problem from another direction by examining what universities have actually done to resolve the conflict. According to Nicholas Steneck, the responses of universities to this problem fall into one of three categories: avoidance, separation, and regulation. Avoidance and separation are inadequate, for the reasons sketched by Steneck. By definition, policies of avoidance refuse to acknowledge the importance of these problems and are effective only as long as the issue of funded research rarely arises. Small colleges might avoid the problem entirely, but any institution which takes advantage of outside funding by charging overhead cannot do this. As soon as an institution decides that it will profit, it has committed itself to a policy regarding funded research, even though it may be doing so without considering what is an appropriate policy.

Separating funded research by creating an institute or "independent corporation" for such research seems the preferred procedure for many large universities. Such policies of separation are inadequate because they place the simultaneously vital and problematic research activities in question effectively beyond the control of the university. No institution should voluntarily relinquish control over matters so vital to its very existence. Besides, it is myth that such institutions have in fact relinquished control. Since a university could readily change the relationship, real separation is a legal fiction. Separating research from traditional university activities is really just a form of regulation.

The only type of policy worth considering, then, is regulation. The question is what shape regulation of external research contracts should take. It is a mistake to devote much attention, in the present crisis, to what specific policy a university should adopt regarding its external contracts. Should all research that may not be published be banned? Should individual faculty researchers be given the benefit of the doubt that secrecy in particular contracts is not harmful? These questions appear the most pressing, but trying to adopt a policy regarding these matters runs into the problem of balancing competing values when no acceptable criterion exists for that balancing. In addition, adoption of a policy requires a determination about who should decide the content of that policy.

Another concern is that the adoption of a policy, whatever it is, will cut through a complex system of competing values. In any even moderately complex social structure, the ways in which various constitu-

26. Id.
encies have organized themselves vis-a-vis each other are a function of a wide variety of considerations, some economic, some functional, and some social. Change one factor and the other parts of the system must realign themselves. The system is so complex, and the modes of adjustment so many, that it is not possible to know how a simple change may affect every feature. If a university were to adopt a policy prohibiting research unless the material is published within a reasonable period of time, it may find itself losing out in the competition for research scientists who might go to institutions that provide more choice. The university cannot know beforehand what values the scientists will deem most important.

So it is a mistake to suppose that any policy will settle matters. Any policy will provide a fulcrum upon which other parts of a university may turn and so will provide a basis for change. What is wanted is a policy that best furthers the values in competition, but the content of such a policy is not a priori clear.

Besides, a policy on these matters cannot hope to be both good and effective if it is not made in the right way. When no substantive and accepted moral theory provides a clear way to make value choices, one must appeal to some procedure that is as pure as it can be, and one must allow the procedure to work to produce the choices.

Thus, universities need constitutions establishing where decisions concerning research contracts of various kinds are to be made, what objections may trump potential contracts, and how such contracts are to be reviewed. Only in this way may the legitimate interests and demands of scholarship, openness, academic freedom, intellectual leadership, and institutional health be balanced wisely.

V.

Often, when a decision cannot be made, a committee gets appointed and makes a recommendation only after the urgency has passed so that the powers that be can safely ignore it. Still, appealing to a committee has its purposes. Given a long-term problem of accommodating competing values, a standing committee, properly constituted and following the appropriate procedure, can be a device for coming to grips with an issue with no ready solution. Committees may get administrators "off the hook" and may appear only politically expedient when the solutions they offer could be achieved by other means, especially when some independent basis exists for the decision arrived at by the committee. Yet sometimes a committee can settle the matters at issue for all concerned.

It is helpful to contrast a committee as a procedural device with other forms of procedural justice in which the aim is not to settle conflicts between values, but to achieve a just solution. There is pure procedural justice, and there is perfect and imperfect procedural justice.\textsuperscript{29} The

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\item \textsuperscript{29} This distinction is drawn from \textit{John Rawls, A Theory of Justice} (1971).
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latter occur when we know ahead of time what would be just because we have grounds independent of the procedures for determining this. If we can devise a procedure to produce what we already know to be just, we have perfect procedural justice, and if we cannot, we have imperfect procedural justice. The criminal justice system is an example of the latter. To find guilty all and only those who actually committed a crime would be just, but we can design only an imperfect procedure to produce a result more or less approximating what would be just.

We have perfect procedural justice when we can know ahead of time what would be just and what is just is determined by the procedure itself. A lottery is a good example. If the procedure for picking a winner is pure, i.e., there is no cheating and no coercion, the outcome is just. The winner is determined by the procedure. It would be false to say that the winner deserves to win in any other sense than that the outcome was determined by the procedure. To say the winner deserved the outcome would imply that one had some independent criterion for determining who ought to win and who ought to lose.

There is no comparable dissection of procedural devices for alternative ways to come to grips with competing values, but a helpful analogy can be drawn with this taxonomy of procedural justice. A committee can approach pure procedural justice. Properly constituted and following the proper procedures, it produces acceptable solutions to the problems it faces. Such a committee must be properly pure; that is, its decisions must not be coerced by any body external to it or constrained by external considerations having nothing to do with the cases before it, and it itself must properly represent the various interests involved and not be skewed to favor one form of resolution over another. If these conditions are satisfied, then no legitimate foothold will support criticism of its deliberations or decisions.

The procedure is designed to accommodate, on a case-by-case basis, competing values. The difficulty of such an accommodation, and the main source of disanalogies, are the independent grounds for decisions that accommodate the competing values. For a standing committee, each case presents a test case for each value in competition. No matter how pure the procedure, however, an objective observer can find an independent basis for rejecting any proffered solution. This is a consequence of having competing values backed with competing visions and competing grounds of support.

The standing committee is a procedural device to “finesse” the problem primarily created by not having some overarching non-contentious theory that allows one to choose between the competing values. The purer the procedure, the better the arguments that justify particular decisions, the more respectable the members of the committee, the more deeply committed to that procedural solution, the less likely it is that those affected by the decision will reject the results of the procedure.  

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Put another way, the purer the procedure, the less legitimacy any independent objections will have because they will already have been given a fair hearing within the committee's deliberations and determined not to be decisive.

It would stretch matters to say that the procedure itself determines the acceptable resolution. Such a claim is unnecessary for what is at issue. This is one reason why the standing committee can only approach pure procedural justice. To say the procedure itself determines what is acceptable would imply that no competing value can properly trump its competitors on any independent grounds. Although those committed to a value may concede that as a practical matter they cannot wrest consent from those holding the competing value, they need not concede that theoretically no way exists to prove that their value ultimately deserves to triumph. Agreeing to a procedural device like a standing committee is an act of trust by those deeply committed to their position that their vision will be treated fairly and with respect. It need be construed only as a pragmatic step taken because one cannot get agreement, not as a theoretical commitment required because no independent grounds give us the right answer.

Not just any procedure will do, and not just any committee, however pure, will do. The procedure must force evaluation of the various reasons given for alternative courses of action in particular cases, and the committee must be constituted so as to allow the procedure to function and its results to have appropriate respect. These are not separable issues. A procedure's results will be acceptable only provided that the committee that deliberates is constituted in a certain way and operates within a certain sort of governing framework. Change the committee, or change the framework, and the procedure itself is damaged. Put another way, the existence of such a procedure presupposes the existence of certain forms of relationship between the various constituencies of a university. To create such a procedure is to commit oneself to such a relationship.

The proper analogy for the right procedure is the legal process. It is the clearest example we have of a (relatively) pure procedure whose
point is to articulate alternative positions and the reasons for adopting those positions. The legal process is an example of how to come to a decision by considering the weight of various arguments, for or against some claim that has value and is competing with some other claim supposed to have more value. The legal process, in short, is a paradigmatic procedural device for resolving competing values in a way that is supposed to be acceptable. Certain procedural features are of particular relevance to any committee that would consider what ought to be done regarding research grants. We can discover some of these by considering what a judge ought to do in deciding a case in which important values conflict.

A judge's first obligation is to comprehend the points of view of both parties. People do not normally go to the Supreme Court, for instance, unless convinced they have a good case—a fundamental right that is being denied, or a great harm that is being inflicted on them. The judge must come to understand the principles and arguments that move one party to expend such great effort, and spend so much money, to support its claim. The judge must then back off and do exactly the same thing for the other party.

This complex process of getting inside the case from each opposing point of view has two aims. One is to comprehend the nature of each party's vision of the law—what each party believes the law is and ought to be, the view that animates the conviction that wrong will be done if a party's claim is denied. The other is to understand the legal and moral principles which motivate each claim—how powerful they are and how wide their scope, how much more will be affected by them than what is at issue in the particular case, and how buttressed they are by other principles within the system, and which principles in the system will be strengthened and which weakened whichever position is sustained.

These two aims are complemented by another feature of the procedure. It is designed to tease out not just the competing visions of law and the opposing principles, but all the relevant reasons for each view.32 This is accomplished in three primary ways. Opposing lawyers must meet the arguments each gives, must give as many arguments as they can in order to lay the groundwork for appeal should they lose, and must respond to questions from judges. When one considers a succession of cases about a single issue or set of issues, all the relevant reasons have even more chance to be heard. The opposing lawyers build on the arguments given in previous cases, honing and sharpening

32. One difficulty with analogies, of course, is that there are often as many points of difference as similarity. One might thus object that in the law evidence is barred and that surely we do not wish to have anything similar in what we recommend. The response is that barring evidence is itself a matter of contention, for considered argument from both sides, and that rather than restrict any committee from barring evidence, we would suggest that the same standards be met for it as for the law.
them, and add new arguments, now made more germane or pointed by changes in the factual situations or by the reasoning given by judges in previous decisions.33

One wants all the relevant reasons to be heard because even though one reason may be decisive, making sure one has all the reasons guarantees that one will fully comprehend the ramifications of a decision. A particular position may be based on high principle, but have practical implications decidedly contrary to the public good.34 Making sure one has all the reasons for adopting a position will help one make the proper decision and allow for its full precedential effects. In short, by alternately taking up the opposing points of view in a procedure designed to elicit reasons for a decision, a judge can understand the arguments that are given for the opposing positions and, perhaps more importantly, the opposing visions of the nature of the law—how each position will ultimately affect our understanding of the nature of law and of the principles which underlie it.

The judge must weigh the competing visions, examine the opposing arguments, and decide. When more than one judge is hearing a case, the process is both complicated, by having to come to grips with opposing understandings of what ought to be decided, and eased, by forcing one to come to grips with those opposed understandings and articulate one's own view more clearly in light of those alternatives. In the best of situations, the process furthers the fairness of the decision by preventing any one judge from furthering particular objectives or deciding on the basis of particular biases. Additionally, the evaluative process itself is furthered by requiring the judge writing the majority opinion to subject his or her views to the scrutiny of the other judges and to respond to any objections.

33. The appeal procedure in the law often forces out for more detailed examination the underlying arguments, and one must ask whether the sort of procedure we are suggesting should allow for appeals and, if so, to whom. Without answering the first question, since we think that will depend upon local conditions, we can say that if there is an appeal procedure, it ought to be either back to the original body or to some comparable body, comparably constituted and equally concerned to elicit the reasons for one decision rather than another. If the point is to provide arguments for each decision, and to do so before a body properly constituted, it will satisfy neither end to allow an appeal procedure that dismisses either condition as not essential.

34. We have in mind here such cases as Gideon v. Wainwright, 372 U.S. 335, 83 S. Ct. 792 (1963). In Gideon, the Court decided that although indigent persons accused of crimes by a state were entitled to lawyers to represent them, none of those who had been convicted, except Gideon, had that right. They weighed the cost of granting the right to everyone convicted without a lawyer and especially the difficulty of retrying all those, with the lapse of years making evidence and testimony significantly less reliable, and decided that justice would not be served by making the decision retroactive. The decision was based on the high principle that any citizen likely to be incarcerated for a crime is entitled to representation by a lawyer, but the implications for those already incarcerated—that they were entitled to be let free because they had not had representation and so were entitled to new trials, with representation—were judged contrary to the public good and to justice.
As decided cases are incorporated into the body of law, new cases arise, either because of dissatisfaction with previous decisions or because previous decisions give rise to new possibilities. The process works to expand the arguments for competing positions and to encourage the fairness of the decisions. Previous decisions are subjected to scrutiny once again, as positions are re-examined and evaluated in light of their actual rather than predicted consequences, and new judges, lawyers, plaintiffs, and defendants enter the process and bring with them fresh viewpoints and new arguments.

The legal process has its drawbacks. As Lon Fuller so nicely pointed out, it converts any problem into a conflict of claims and, as a decision-procedure for settling disputes, squeezes out negotiations and so may prevent the best resolution of a conflict. Settling cases one at a time can lead one slowly into feeling compelled either to overrule precedent or to make what would appear, were it considered afresh, an inappropriate decision. The capacity to make the correct decision in a particular case is in part, perhaps too much in part, a function of the details of the particular case that comes before the court, the quality of the participants in the case, the range of arguments brought before the tribunal, and the strength and quality of their presentation.

All these failures may occur, but properly constructed, such a procedure will more likely produce appropriate decisions than any alternative when the issues that pass through it themselves require contentious choices between competing values. One may object that when one cannot decide which value is the more weighty, the procedure is an odd choice. If one does not know how to accommodate competing values, how does it help to give the job of accommodation to a standing committee? "How," it may be asked, "can many confused people do a better job than one confused person? Is not the analogy of the legal deliberations just a rather dressed-up version of an ordinary committee, and is not the appeal to a standing committee just a rather elaborate passing of the buck?"

35. [A]djudication is a form of decision that defines the affected party's participation as that of offering proofs and reasoned argument. It is not so much that adjudicators decide only issues presented by claims of right or accusations. The point is rather that whatever they decide, or whatever is submitted to them for decision, tends to be converted into a claim of right or an accusation of fault or guilt. This conversion is affected by the institutional framework within which both the litigant and the adjudicator function.


36. The example we have in mind consists of a series of five cases so designed that by the time one reaches the fifth case, one will be faced with a choice between two decisions and two principles, each plausible and firmly grounded in precedent. Either way one decides one will have to overturn decisions that seemed, for all the world, reasonable and even compelled in previous cases. This example has been cut from the abbreviated version of "The Forms and Limits of Adjudication" in the collected papers of Fuller, but can be found in the full version in 92 HARV. L. REV. 353, 375-76 (1978).
This objection misses the point. Of course the competing values will themselves be assumed in any deliberations by any committee. That is itself the point. The deliberations are designed to pull out the various considerations that ought to make a difference in any accommodation. That the committee's proceedings are spread out over time, that such a committee will make its decisions regarding one case at a time, that such a committee will hear new arguments regarding new submissions, that such a committee will have a changing membership over the years—all these are reasons for thinking that several confused people, if we may borrow the expression, are more apt to come to an appropriate resolution of the conflict than one.

For instance, deciding one case at a time means that mistakes can be corrected before they become too deeply entrenched. The principles of a decision are enunciated for that case, in those circumstances, for this purpose, and any new case presents an opportunity to modify the tendencies of any previous decision. The members have the chance to see how their confusion plays out in the real world and modify accordingly.

If such a structure is adopted in each institution of higher education faced with the problem, one has as many experiments going on at the same time as one has such institutions. The mistakes of one such committee, even if not corrected by that committee, can be compared with the successes of another. Eventually, with cross fertilization, a consensus may develop about how to handle such a conflict. One strength of the federal structure is that each state has its own legal system, and what works and does not work can be ascertained through comparative analysis. Our suggestion replicates that strength, and it is presumed that such committees would publicize their deliberations or, at least, their reasons for making the kind of decisions they make.37 We also presume, as happens in the law, that the deliberations of these committees would themselves be the stuff for deliberation by academics and that this process would further the public resolution of the issues. The committees would aid the academic debate by sharpening its real point, and the academic debates would presumably aid the deliberations of such committees.

One cannot guarantee that the best resolution will result, or even that any resolution will result, for the tension may itself be useful for some as yet unclear reason, or no acceptable way of accommodating the competing values may surface. But far from duplicating the confusion one faces when values such as open inquiry and academic freedom come into conflict, such a procedural device represents the best chance of allowing those conflicts to accommodate each other in a healthy way, in a way that will best encourage both.

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37. We put to one side the issue of whether those seeking funding should be named in any public report. It is not obvious that that is necessary to the kind of record-keeping and reporting that needs to take place.
Yet one cannot commit oneself to a procedure without making commitments of *substance*. The agreement to meet on a committee, with equal votes, is an agreement to a substantive principle that the participants have equal weight. It is no wonder that negotiators for one side of a conflict are reluctant to meet with those for the other or that university administrators are reluctant to meet in a committee with faculty and let the committee be the final arbiter of what ought to be done. Such a meeting itself legitimates the essential equality of all who take part. Thus, agreeing to a standing committee to resolve the problems of funded research is agreeing to a governance structure in which respect for its deliberations and its conclusions is possible. For many institutions of higher education, this means readjusting the longstanding relationships among the various constituencies.

**VI.**

Who is to make the policy? The vaguest formulation is that a university make it. But does that mean that the administration is to make the decision? Some portion of the administration? The faculty, voting by majority rule? Some portion of the faculty, like a Faculty Senate, or a subcommittee of such a Senate? The Board of Trustees? Some portion of the Board? Each option presupposes a conception of how a university ought to be constituted and where the power lies, or where it ought to lie.

Institutions of higher education, whatever the structural differences among them, are, as a class, oddly configured when compared with corporations or with partnerships such as law firms. The failure of universities to grapple with certain oddities in their institutional character in large measure generated many of the modern problems hovering around university research policy.

38. Michael Walzer, in his *In Defense of Moral Minimalism*, presented at the First National Conference for the Association for Practical and Professional Ethics, makes just this point in attacking attempts to reconstitute moral theory by appealing to a procedure, or set of procedures, that is supposed to have few moral commitments and yet issue in substantive moral commitments.

We have not attempted to provide a taxonomy of the kinds of substantive moral commitments one makes, or can make, in committing oneself to a procedure. For a statement of some of the moral commitments made by Rawls in arguing for an original position which was supposed to be morally neutral between competing moral theories as well as between competing theories of justice. See Wade L. Robison & Michael S. Pritchard, *Justice and the Treatment of Animals: A Critique of Rawls*, 3 ENVTL. ETHICS 55, 55-61 (Spring 1981). See John T. Sanders, *The Ethical Argument Against Government* 1980, chapter 4 (for considerations somewhat more sympathetic to the neutrality of the Rawlsian methodological framework).

39. It certainly is a large part of the problem at the Rochester Institute of Technology (RIT). At RIT, a university president who had been successful for years in attracting outside funding to university activities ultimately was criticized for making the wrong deals in the wrong way.
In law, universities are corporations. But imagining them on a par with the standard corporate paradigms, like Exxon or Kodak, confuses the issue.\(^{40}\) Universities are also not an incorporated body of faculty—like a large law firm, perhaps, with managers to handle the business aspects of getting clients and paying the bills. Getting a handle on just how universities are and ought to be structured is no easy matter. This is further complicated because those structures are themselves changing. As the need for funding grows, presidents are required to spend more time courting money than faculty. This requires the creation of administrative staffs devoted to fund-raising. As the need to respond to government regulation has increased and as universities have grown, administrative staffs have grown and a hierarchical structure has imposed itself, somewhat awkwardly, on what was a much more horizontal form of participation. Our suggestion about how to handle the problem of funded research will require that institutions of higher education address these tendencies toward hierarchical forms of governance.

The conception of structure affects how one conceives of making decisions about funded research.\(^{41}\) If one conceives of the university as a corporation, one does not move too far in thinking that the decision-

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40. It is not uncommon for members of a Board of Trustees to think of universities in this way. After all, many members are drawn from the corporate world, in no small part because of the need for outside funding we have been talking about, and it never occurs to some of them that a university may be structured in a very different way. Their contact is primarily with the President of the university and its various Vice-Presidents, and from that limited perspective, they may be misled into this misconception.

It is also, unfortunately, all too common that presidents tend to think of universities in this way, and some of the messier affairs between new presidents and their institutions arise from the attempt to import into the academic setting the structure and trappings of the corporation. Among other things, the hierarchical structure makes for easier lines of responsibility and decision-making, and the association of presidents with those with money (e.g. those in corporations, certainly not faculty) may subtly encourage a certain sort of mind-set.

41. We are particularly concerned to stress this point because of our own experience in arguing at RTT for the procedure we have suggested. In a discussion with one member of the Board of Trustees, we were struck by a curious obstacle in the conversation. It was not that the trustee was unwilling to relinquish policy-making to some broader-based procedure, but that he did not even understand the proposal. It must have seemed so alien as to be incomprehensible.

One need not envisage power-hungry Boards to understand why members should find it inappropriate to give up such policy-making. A member might hold the moral view that the Board will ultimately be held responsible for whatever an institution does and that it is part of the Board’s responsibility to set the broad outlines of policy; not to turn over such a responsibility to any such standing committee as we have suggested would be a dereliction of duty.

We should add, so that we are not misunderstood, that we would think it a mistake as well for faculty to argue either that they as a body ought to make such decisions or that their representations ought to make decisions about funded research. Proper procedure must cultivate an atmosphere in which all relevant considerations are adequately explored.
making rests with the President or the Board of Trustees. If one conceives of the university as the body of its faculty, one does not go too far in calling for a vote of the faculty on the matter. By conceiving that decisions ought to be made in a certain way or by a certain body, one is required to conceive of the governing structure of a university in a certain way.

Laying out the details results in the same mistake made by those institutions which lay down policy. On the one hand, the system is so complex, and the modes of adjustment between the parts so many and varied, that changing one aspect will cause the others to adjust themselves. One cannot be sure what the readjustment will produce. On the other hand, there are enough variations within the various institutions of higher education that choosing one model for the sort of standing committee we recommend may not answer well a particular institution’s long-term needs. To select one model is to suppose that all should be the same. Additionally, it is to suppose that universities are currently in a position to move without difficulty to that reconfiguration. Finally, it supposes that a single structure will in fact produce the results supposed and, as Rawls would put it, strengthen itself as it matures, whatever the institutional setting, deepening the commitment of those within to its essential forms. Since we do not think that any of these suppositions are true, we think it inappropriate to argue for one canonical model for such decision-making.

The form of such a standing committee is also a matter for decision and as much a matter of evolution as the principles for funded research that ought to come from such a committee’s deliberations. The most we should do, and the best we can do, is to lay down a few guidelines for its construction.

Providing such guidelines may mislead for a variety of reasons. Creating such a committee does not require simply following a formula: get the right mix of constituencies within the academic community—four faculty, three administrators, one student, one staff member, and give them a meeting time, an agenda, and a deadline. Instead, creating such a committee requires that an institution come to grips with its

42. This is arguably what happened at RIT where the President handled the Institute’s contracts and contacts with the CIA out of his office. He argued that this needed to be done on grounds of national security, but the very form of his solution to what he perceived to be a problem presupposed a governance structure of the Institute, or what he perceived to be a governance structure, that allowed, and perhaps even obligated, him as President to make such arrangements.

See Daniel H. Perlman, Ethical Challenges of the College and University Presidency, in ETHICS AND HIGHER EDUCATION (WILLIAM W. MAY ET AL. 1990) for a helpful discussion of the professional and moral obligations of college and university presidents.

43. Rawls refers to the sustaining and deepening of commitment as the problem of stability. He builds into that concept the idea that a system becomes more and more stable if the system encourages the participants in the system to internalize its norms. See JOHN RAWLS, A THEORY OF JUSTICE, 177-82 (1971).
governance structure. Our concern is not with the details, but with the understanding that behind the details lies a governance structure adequate to handle the problem and reflect its complexities.44

What is required is what we call the "constitutional approach." This approach depends upon two basic principles: a) university-wide acknowledgment of a "federated separation of powers" (attended by a system of checks and balances), together with b) hierarchically arranged rights and responsibilities that translate into a placement of decision-making rights within the federated separation of powers at the university. This approach recognizes that the interests of the various constituencies of the university are best served by an understanding of the tensions inherent in the traditional myth of academia and a public commitment to working out those tensions through a procedure such as we have described. Such understanding and commitment will require a thorough examination of the current governance structure at any university. Additionally, it will require a restructuring that is appropriate to create such a standing committee as we have recommended and that is amenable to accepting any result of that committee's deliberations.45

VII.

Buried within the traditional myth of academia, we have suggested, is a tension between the ideals of open inquiry—the increase and dissemination of knowledge—and the ideals of freedom of choice of academics. A thorough history would show that the tension has existed for a long time and that neither set of ideals has ever been, or could be, fully achieved. The tension shows more brilliantly these days because of the increased need for external funding. We suggest that a procedural device offers the best chance of coming to grips with this tension. Standing committees can, over time, work their way through particular grant applications and give reasons for preferring one over another, or preferring none at all.

This move is calculated to "finesse" the difficulties of making the hard choice between equally compelling values. Those values are required to meet and jostle in real cases and be settled by reasons that will survive the particularities of each meeting. The end result may be what we now have. No such procedural device, instituted within an ongoing system, can guarantee structural changes in that system. But if its adoption is conceived as part of the larger issue of the fundamental

44. For a review of procedures adopted by various institutions of higher education, see Eisenberg, supra note 21.

45. A result might be, for instance, that it is a mistake to allow research to take place outside the institution proper. If a university already has set up a research institute, separate from the university itself, such a result will cause some severe wrenching within the university. We are not urging such a result, but pointing out that the sort of commitment we are urging may have that result.
constitution regulating a university's affairs, the likelihood for fundamental change is increased, and the result of that change will be the replacement of that traditional myth with something else, something perhaps more nuanced to the realities of practice.