Twelfth David Dodds Hentry Lecture: The New American University by Frank H. T. Rhodes

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The New American University

by Frank H. T. Rhodes

President, Cornell University

Twelfth David Dodds Henry Lecture

University of Illinois at Chicago

The David Dodds Henry Lectures in Higher Education are endowed by gifts to the University of Illinois Foundation in recognition of Dr. Henry's contributions to the administration of higher education, including his career as president of the University of Illinois from 1955 until 1971. The lectures are intended to focus upon the study of the organization, structure, or administration of higher education, as well as its practice. Selection of persons to present the lectures is the responsibility of the chancellors of the two campuses of the University. Presentation of the lectures is alternated between Chicago and Urbana-Champaign.

The New American University

DAVID DODDS HENRY

President, University of Illinois

1955-71

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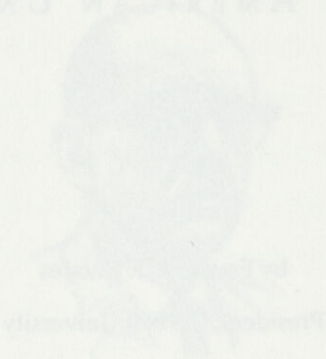
October 10, 1990



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Preface

Before I ask President Ikenberry to introduce our lecturer, I would like to say a word about the David Dodds Henry Lectureship, which is endowed by gifts to the University of Illinois Foundation.

The lectureship honors President Emeritus Henry for his sixteen years of accomplishments for this institution before his retirement in 1971. The lectures alternate between the Chicago and the Urbana-Champaign campuses.

In focusing on the administration of higher education in its broadest terms, the lectureship is a tribute to the statesmanship of Dr. Henry in academic affairs, one example of which was his leadership in widening the University's base in the Chicago metropolitan area. At his retirement base in Florida, he maintains a lively interest in the purposes and practices of higher education.

James Stukel
Chancellor
University of Illinois at Chicago

Introduction

Someone once defined a university president as a person who lives in a big house and begs for a living. I've never visited Frank Rhodes's house; and although Cornell does do very well indeed in private fund raising, I have never seen Frank beg.

I can tell you, however, Frank Rhodes may be the most able university president in America. Among all of us, he enjoys the highest esteem. As President of Cornell University for thirteen years, he has a special comprehension of the role of public and private higher education because, in fact, Cornell is both.

As an administrator, Frank Rhodes is thoughtful, forceful, sensitive, and strong. As a geologist, he remains active in his field. He has authored more than seventy scientific articles and monographs and five books and has held choice fellowships, faculty posts, and academic administrative roles in his native England and in America.

I take particular satisfaction in noting that the course of his career carried him to the University of Illinois at Urbana-Champaign as a postdoctoral fellow. Frank has served the University of Michigan, the University of Wales, the University of Durham, and Cambridge University, where he serves as Life Member.

Frank Rhodes has served and led most of the leading higher education bodies, as well as many national commissions and task groups. He is a former chairman of the executive committee of the Association of American Universities and a former chairman of the boards of the Carnegie Foundation for the Advancement of Teaching and of the American Council on Education.

In 1987 Frank Rhodes was appointed by President Reagan as a member of the National Science Board, and in 1989 he was appointed by President Bush as a member of the President's Education Policy Advisory Committee. He serves on the boards of trustees of the Mellon Foundation, the Gannett Foundation, and the Memorial Sloan-Kettering Cancer Center.

Among the various honors that Frank Rhodes has received are honorary degrees from twenty universities in the United States and abroad. In 1989 he was elected a fellow of the American Academy of Arts and Sciences. He holds the Bigsby Medal of the Geological Society and is an honorary member of Phi Beta Kappa.

It must be obvious, but let me make it explicit: It gives me great personal pleasure to introduce Frank H. T. Rhodes as our twelfth David Dodds Henry lecturer.

Stanley O. Ikenberry
President
University of Illinois at Urbana-Champaign

The New American University

by Frank H. T. Rhodes

President, Cornell University

President Ikenberry, Chancellor Stukel, and friends, I am not only very pleased to be with you this morning, but I am honored for two different but related reasons.

The first is that exactly forty years ago this month, I came from England as a young geology graduate student to the University of Illinois. My association with the University of Illinois has had a decisive influence on my life, shaping the kind of person I have become and the professional career I have followed. It was here that I met my wife, an alumna of Illinois. So I have an enormous debt to the University of Illinois and to its members. I want to acknowledge that debt and celebrate the generosity of spirit, the scholarly distinction, and the personal friendliness of the Illinois community not just in those early days, but over the years. Illinois has enriched me, and I am immensely grateful to all of you who are part of this great University.

And second, I want to express my respect, gratitude, and admiration for David Dodds Henry. It so happened that I was a very junior member of the faculty when David Henry came to the campus in 1955 as the new president of the University, and I watched him assume the reins of office as he began a presidency of the University that continued for sixteen distinguished years. There is universal agreement that his incumbency left Illinois a remarkably improved and enriched institution. I want to join you in saluting him this morning, not only for his leadership of Illinois, critical

as that has been, but for the distinguished leadership he has provided for so many years on the wider scene of higher education in this country and beyond it. That was fittingly recognized a few years ago when he received the American Council on Education's Distinguished Lifetime Achievement Award. I want also to say that for a dozen years or more, I have had the benefit of a close friendship with Stan Ikenberry, and he is a worthy successor to David Dodds Henry. So I am deeply grateful for your invitation this morning.

My thesis today is a simple one, quite unremarkable in the abstract, but divisive in its implications. I submit to you that America's most urgent challenge is not the budget debacle. It is not the situation in the Persian Gulf. It is not national competitiveness or lack of it. It is not our decaying infrastructure, urgent as all those challenges are. Our biggest challenge, our most urgent crisis, is education. It is a quiet crisis, unnoticed most of the time, but its effects are daily more visible.

You probably saw the recent *Time* magazine cover article on the plight of America's children, and it is there that we see the devastating implications of our educational neglect. Every eight seconds of the school day, *Time* reported, a child drops out of school. Every 26 seconds a child runs away from home. Every 47 seconds a child is abused or neglected. Every 67 seconds a teenager has a baby. Every seven minutes a child is arrested for a drug-related offense. Every 36 minutes a child is injured or killed by a gun.

How is it that we, the wealthiest nation in the world, can tolerate those statistics? How is it that we, a proud country, can rank eighteenth amongst the developed countries in infant mortality? How is it that we are willing to accept the fact that only 75 percent of our young people graduate from high school, whereas in Japan, for example, the figure is above 90

percent? How is it that one in five American adults is either semiliterate or illiterate, whereas in most of our competitor countries the literacy rate is close to 100 percent? How can this be, especially when the college-going rate in our country is twice the college-going rate in any other developed country, Canada excepted? And when we claim that our colleges and universities are the pride and the envy of the world, how can our schools be such a reproach to us? That is the question I want to put to you.

Of course, there is no single answer. We can point to poverty. We can point to the collapse of the traditional family. We can point to drugs. We can point to crime. We can point to misplaced national priorities and concerns. All those and more are involved. But I submit to you that the universities, although they cannot solve the problem alone, must be a major part of the solution, because the problem cannot be solved without their help. And that solution requires a new model for the American university, not simply refining what we have, but creating, in essence, a new model of knowledge. Results depend upon knowledge, and the kind of results we obtain depends upon our view of knowledge. That has profound implications for universities today.

Let me take you back to the beginning, to the founding of Harvard in 1635. Harvard has become the model for all that has followed since. Like it or not, most of us emulate Harvard. Listen to the first fund-raising prospectus published by Harvard within eight years of its founding. It is a moving document. "After God had carried us safe to New England," the writers recorded, "and we had builded our houses, provided necessaries for our livelihood, rear'd convenient places for God's worship, and setled the civil government; one of the next things we longed for, and looked after was to advance learning and perpetuate it to posterity." Harvard blossomed from its early founding and, as the country developed, more colleges devel-

oped based on the Harvard model. The chief concern of those New England colleges was the moral and personal development of the students entrusted to their care and their preparation as new members of the clergy and the learned professions. What was the model of knowledge in those early years? Knowledge was a deposit to be safeguarded, to be conserved, and to be handed on.

And so the first of four models of knowledge that I want to suggest to you is a model where knowledge was a deposit and a personal possession. It was conserved; it was protected; it was handed on. But that, of course, was a closed, an exclusive, and a non-self-correcting model. At that time, those who acquired this kind of knowledge were white males. As the needs of the country changed, the emphasis of education changed to more practical concerns. As early as 1806, Thomas Jefferson, in a message to Congress, urged that there should be a national university—its purpose being not simply "to enlarge the minds and cultivate the morals of the young," but to "harmonize and promote the interest of agriculture, manufactures and commerce." And here in Illinois in 1850, Jonathan Baldwin Turner proposed that Illinois should use funds from the federal government to endow a state university that would serve, in his words, "the industrial classes of the state." And as you well know, in 1862 that dream became a reality, and the Morrill Act, sponsored by Justin S. Morrill, a Vermont congressman and later a senator, was signed into law. The words of that first Morrill Act are still worth reading because they are remarkable in their sensitivity not just to immediate concerns, but to long-term needs.

The Morrill Act proposed to found new institutions "where the leading object shall be, without excluding other scientific and classical studies and including military tactics, to teach such branches of learning as are related to agriculture and the mechanic arts in order to promote the

liberal and practical education of the industrial classes in the several pursuits and professions of life."

These new "land grant" institutions had three distinctive characteristics. First, they were egalitarian. They were not exclusive, as were the New England colleges. The poor as well as the rich were to enjoy their benefits. Second, they were to stress practical education as well as classical learning, agriculture as well as philosophy. And third, they were to provide service far beyond the campus, not just to students, but to the people of the state and the nation.

Here, then, was a second model of knowledge—not a deposit, not something between the covers of books, but an instrument. That view of knowledge as an instrument, as a means to an end, instead of the end itself, changed the shape of universities. You know the subsequent history, the brilliant success of the land-grant institutions: how the Morrill Act was followed in 1887 by the Hatch Act, which established agricultural experiment stations; how that Act was followed in 1914 by the Smith-Lever Act, which gave federal support to university extension and outreach efforts that were already well under way. Those three pieces of legislation have played a major role in the transformation of our national life. A recent fact book notes that the land-grant universities and the state universities associated with them award one third of all the nation's baccalaureate degrees. They award more than one quarter of the first professional degrees, and nearly 60 percent of all the doctoral degrees.

The view of knowledge as instrumental has had a profound effect upon the nation in which we live. Most of that influence has been for good; for example, the Salk polio vaccine, many antibiotics, the first digital computer, the "Green Revolution," which extended modern agricultural practices beyond our shores can all be traced to our land-grant universities

and to the instrumental view of knowledge that they pioneered. Some inventions, of course, are less benevolent. The parking meter, for example, is said to have originated from university research. But by and large the influence of land-grant universities has been positive and good. Knowledge gained on the campus has been developed, shared, trusted by those who could use it, and applied to human needs.

But whereas once those three ideals of teaching and research and service, in roughly equal balance, were the model for all universities, two of them have now fallen into the background even, I am sorry to say, on some of our own campuses. They have been replaced by a third model for the university: the so-called research university. All universities now aspire to become research universities, so called because of a system the Carnegie Foundation developed some years ago for classifying the more than 3,000 different institutions of higher education in this country. I don't like that phrase. I don't like it, first, because for a true university, it is redundant to describe it as a research university. It's like talking about a patient care hospital. If it is a hospital, it provides patient care. Or a transportation airline. If it is an airline, it provides transportation, most of the time anyway. Of course, there are universities and universities. And where it is not superfluous and redundant, the term *research university* tends to be an oxymoron—like postal "service" or airline "cuisine"—because some universities that call themselves research universities are clearly not.

The model of the research university is one in which knowledge is not a deposit, nor an instrument, nor a means. Knowledge in the research university has become a personal profession, a personal job. Knowledge becomes personal, and it is a profession. The gains from that have been real, and I have talked about some of them.

But the losses have been no less real. First, the faculty has focused on increasingly more narrow specialties. Second, undergraduate instruction has received less care and less attention than it should on some of our campuses. And third, there has been a reduction in commitment to public service, both collectively and individually. I want to suggest later how these may each change if we change the model of knowledge that our institutions represent. But let me, first of all, take a brief look at the change from the land-grant notion of service to the idea of knowledge as a personal profession in which the individual, at age twenty-eight or thirty or so, is locked into a scholarly career in a particular subfield of a particular discipline.

Most of the early land-grant professors and leaders were devoted to public service, both in terms of outreach and in terms of inreach on the campus. Service was the reason they went into teaching. But that is changing rapidly as we have embraced the so-called research university model. New faculty members are too often chosen not for commitment to those wider aims of scholarly service, but for narrow disciplinary expertise, for publications that often count more heavily in first appointments, tenure, and promotion than do teaching and community service. Please don't misunderstand me. I believe in the fundamental importance of research. I believe it is fundamental to the nature of the university. And as we move into ever more complex fields—from the social sciences to biotechnology and to supercomputers and to superconductivity and all the rest—we need even better research than we have at present. And that is no less true in the humanities, the social sciences, and the professional fields. But on the other hand, we are not going to obtain the research we need if we allow all our faculty appointments to be based on a model that sees knowledge as a purely personal, professional concern. That is destructive.

I believe this view of knowledge is destructive, first, because it isolates department from department, and it isolates individual from individual within those departments. In some large departments, there is often little that faculty members have in common as scholarly interests among themselves, much less with those outside their particular departments. This view also generates a kind of inward-looking arrogance, because if you have nothing to talk about with "X" or "Y," then the next step is to assume that "X" and "Y" have nothing of importance to contribute to you. The second thing this view does is to encourage neglect of both assumptions and implications of the knowledge in each individual field. Third, it may allow abuse, because isolation reduces criticism. You have only to read *Science* or *Nature* or *The New York Times* to know that, in what we had thought of as perhaps the purest human pursuit, the search for new knowledge, there is widespread allegation of scientific corruption and fraud by, among others, congressional and NIH investigation committees. It also produces imbalance because, as I said a moment ago, teaching has gone by the board in some of our institutions, except for those students who have already declared themselves as apprentices in pursuit of the same professional goals as those of their faculty mentors. It has made for a trivialization of aim and a narrowing of focus, because the whole universe of scholarship for the individual becomes one particular subfield of a particular specialty. It has led to a massive loss of institutional loyalty, because the loyalty of the young faculty member is to the professional guild rather than to the institution. The most sought-after prizes and kudos are awarded by the guild, not by the institution that pays the faculty member's salary and for whose students the faculty member was appointed in the first place. And this view has led to a distortion of values, because recognition comes not from students inspired, not from communities helped, not even from great

questions addressed or long-standing problems resolved; it comes instead from grants received, from titles published, from new lab space acquired, from papers given, and from the vanity of a citation index. All that, I believe, has been a corrosive and destructive influence upon our campuses.

So what we need is a new model of knowledge—a new disciplinary approach in addition to a new multidisciplinary approach to knowledge, and a new attitude in which we look beyond such things as microeconomics and one-meter square ecology and embrace a more general view. We need to see knowledge in a completely different way if we are really to solve the problems of our universities. I believe the time has come to acknowledge that it is unsatisfactory to see knowledge as a deposit. It is unsatisfactory to view knowledge as an instrument. It is inadequate to see knowledge as a personal profession. We must regard it instead as a common quest, an exploration undertaken in partnership with others. Otherwise, our universities have no meaning. We would have not a campus, but simply isolated, electronically linked individualized labs, databases, and reading rooms. Only by seeing knowledge as a common quest can our institutional life be restored. If that change is desirable, and I think it is, it will have profound implications for the kind of community we have on campus. It will have profound implications for the kind of men and women we recruit as faculty members. It will have profound implications for our research as well as our teaching, because knowledge will be gained not in isolation, but as part of an interacting community in which questions are addressed in common. If such a view of knowledge is desirable, how is it to come about? Who will bring it about? And what are to be the means? I don't have all the answers, but I hope I have raised questions that we may address together in our discussion session.

Let me say a word now briefly about undergraduate teaching, because I think that the recent waves of criticism, though there are wild exaggerations in some and gross distortions in others, have more than a grain of truth in them. To some extent, the undergraduate students have been the losers in this changing view of knowledge, as we have sold our souls more and more to massive research funding from external sources. There is much talk in our recruiting literature about the synergy between research and teaching. In the best research universities, including, I believe, Illinois and Cornell, that's true. I know it was true when I was at Illinois. I know it is true now on the Cornell campus. We have a Nobel laureate chemist, for example, teaching Chemistry 101, and you could multiply that example countless times on both the Chicago and the Urbana-Champaign campuses of the University of Illinois. I am told that at Chicago, for example, more than 70 percent of the introductory courses are taught by tenured professors. That seems to me to reflect the fact that, where we take seriously the common quest for knowledge and where research is part of the spirit of teaching, we have the best possible environment for scholarship. You remember what John Slaughter, former Director of the National Science Foundation, once said: "Research is to teaching as sin is to confession. Unless you participate in the former, you have nothing much to say in the latter." And that remains true of the best teaching. The best teachers are, themselves, learners—continuing to learn on a lifelong basis, committed, with their students, to a quest for understanding.

But at many institutions, including perhaps some corners of our own campuses, we know that undergraduate students take second place. Faculty members talk of teaching "loads" and research "opportunities," and that speaks volumes. We need to get back, all of us, to the notion that there are great opportunities and wonderful challenges in both teaching and

research. If we engage in a common quest for knowledge, we shall see students for what they really are: not as an inconvenience that keeps us away from the library or the lab bench, but as partners in this common quest, as people who ask the unexpected question and raise the unobserved difficulty, fellow seekers, perhaps at a slightly different stage but moving in the same general direction. And so the notion of shaking off responsibility for elementary undergraduate courses as an inconvenience is something that will disappear from our campuses. It has been said that a faculty teaching award can be the kiss of death to a young assistant professor, because the assumption amongst tenured colleagues will be that the person, in order to receive the reward, is spending too much time on teaching. It really is a scandal that that kind of observation can be made. No one on our campuses can neglect his or her responsibilities for undergraduate students. They pay our salaries. They are our clients. They are our products. They are the future governing citizens of the country. And they are our successors in the disciplines. How dare we regard them as an intrusion upon our other responsibilities of research and service.

Part of the problem, of course, is that no single department has responsibility for the general well-being and education of undergraduates, and it is time that we, collectively, faced that fact. I would like to talk with you later on about various ways of addressing this issue.

In addition, we need to blur the distinction that has been made between teaching and research. All of it is discovery; discovery is the common quest. So let's talk no more about three functions of the land-grant university: teaching, research, and service. There are really only two: discovery and service. And discovery is part of a common quest in which both students and faculty engage: and the discovery is not limited to the curriculum; self-discovery is also involved with a growing sense of understanding, perception, and appreciation.

Let me also say a word about the new university in the area of service, and I come here not as somebody who has something to teach, but as somebody who has much to learn. The University of Illinois's outreach in Chicago and elsewhere is the model, I believe, for cooperation with the community, with foundations, and with other agencies and organizations in community service. The role that you are playing in the community makes you a flagship for the rest of us, and it is one that is going to have a profound influence for good within the community itself. You cannot be a global university, as some of us aspire to be, unless you serve well in the local community. Equally, you cannot be a service institution to the community unless service begins on the campus. It is no good talking about outreach without inreach. And so the link that existed between the land-grant university and the farms and farming community in the early days of the institution has now to be reinvented in a host of different spheres: in inner city communities, in the nation's schools, in the nation's industries, and far beyond our national borders on an international scale, where problems of poverty and hunger and deprivation dwarf even the massive problems that we face at home.

How are we to do that? Well, in recent years, numbers of universities, including your own, have begun to experiment with new models of service. Some of these deal with the kind of things I just talked about in the inner city community. Others, industrial extension programs, for example, deal with such needs as helping small businesses get off the ground. Some of these businesses have just ten or a dozen people, and they are struggling with everything from management techniques to injection molding techniques. Much can be done by the universities there. But we need, in fact, a new kind of scale and new kinds of partnership. We need a university which is truly global in its undertakings.

A recent survey of manufacturing companies showed that 40 percent of 99 who responded to a questionnaire acknowledged that they had failed to take advantage of international opportunities in the last three years because they lacked knowledge of what those opportunities implied. And virtually all of them replied that they intended to increase their presence in international markets in the coming decade. How are we, as institutions, to be part of that enabling process that helps us to provide better leadership for our own educational efforts, better leadership for our businesses, and, in fact, a better life for all the people of the world? There will be those who suggest that to think and act globally is to betray the states that support us as land-grant institutions. I don't believe that is the case because, whether it is in Illinois or New York, the future of the state is going to depend on the global competence of all our citizens and workers. Unless we are globally competent not just in the schools and in the colleges, but in industry and in everything else we do, we are not going to survive in the modern world. And so part of our service to the state is going to be reinforcement of global competence if we are to compete effectively in the world's markets.

For the faculties, that is going to mean new opportunities to study and work abroad. It is going to mean new challenges to integrate that experience into the curriculum. It is going to mean the same thing for the students. Could we, perhaps, aim to have every student who graduates by the turn of the century have had some international experience, whether in study or in work or in service? I believe that is a possibility. Don't we now have an obligation to produce global citizens for a world that is shrinking before our eyes, where alliances and interrelationships change on an almost daily basis? So we need more opportunities for study abroad, for work abroad, for service abroad, more opportunities to link the major to an

understanding of how things are done in other cultures and other countries, more foreign language instruction at a meaningful level that will equip people to travel and to serve. And the chief emphasis in this international outreach is not a paternalistic one, where we go to other parts of the world and explain how things should be done, but an emphasis in which the benefits are mutual, in which experience is shared, in which institution-building and developing human resources and capital are the goals of a common program.

I love the story of the Virginia colony back in the 1770s, which as a concession and a gesture to the local Indian people, invited them to send six of their young braves to Williamsburg College. The reply from the Indian community went as follows:

> We thank you heartily. But you, who are wise, must know that different nations have different conceptions of things, and you will therefore not take it amiss, if our ideas of education happen not to be the same as yours. We have had some experience with it. Several of our young people were formerly brought up at your colleges; they were instructed in all your sciences; but, when they came back to us, they were bad runners, ignorant of every means of living in the woods, unable to bear either cold or hunger, knew neither how to build a cabin, take a deer, or kill an enemy, spoke our language imperfectly, were therefore neither fit for hunters, warriors, nor counsellors, they were totally good for nothing.
>
> We are, however, not the less obliged by your kind offer, tho' we decline accepting it; and to show our grateful sense of it, if the gentlemen of Virginia will send us a dozen of their sons, we will take care of their education; instruct them in all we know and make men of them.

Mutuality has to be the basis on which we seek out other peoples of the world, and the emphasis must be on service and sharing, not on prescription and demonstration. What does all that involve? Is it an

impossible ideal to become a global land-grant university, where knowledge becomes not just a common quest on the campus, but now a global quest among different peoples for understanding and enlightenment and knowledge? I don't think so. It does involve challenges, but they are not insuperable. Let me identify what some of the challenges are.

The first challenge is balance. How do we strike the right balance between local, state, national, and international opportunities? I will give you one example. Our Johnson Graduate School of Management now has more applications from students living in Tokyo than it has from students living in New York City. We could fill the class with Japanese students who would pay full tuition and would receive no financial aid, because they wouldn't need any. What should we do? What is the right balance? We are clearly not going to do that, but what is the right balance and how do we make that decision? You have similar questions of balance at Illinois.

The second challenge: What about scale and limits in this global land-grant university? We can't tackle all the world's problems. Cornell certainly can't, not even the University of Illinois can do that. How do we set reasonable limits? How do we establish priorities? How do we choose projects where we can have a meaningful impact?

Challenge number three: There is a well-established formula for funding the current land-grant universities—the state, the federal government, and local counties. There is no formula for funding the international land-grant university. How can we put together a coalition that will do that?

Challenge four involves the challenges of communication and community, because with our community literally spread across the globe, old patterns of communication are no longer adequate. How can we address this?

Challenge five: undergraduate education. What does all this mean for internationalizing the curriculum? That's a fashionable word, but what does it really imply for the undergraduate curriculum? How do we react here to the allegation that to move globally will be to dilute even further the attention that we give to undergraduate affairs or to the Western heritage that is ours?

My final challenge is to ask: How do we administer and support this new alliance? I wonder if a small handful of universities—perhaps Illinois, perhaps Cornell, perhaps a half-dozen in all—might form a loose consortium of some kind, linked perhaps with universities abroad, linked with a few foundations and companies that have international interests and then, on a limited, selective basis, see what we can begin to do about inventing the global land-grant university.

I mentioned at the beginning of this talk that Harvard has been the model for all of us. As the year 2000 approaches, Harvard, with all due respect, is no longer the best model for all universities. The right model is Illinois reaching out. But how do we make that outreach global? How do we translate that into an institution that will transcend national boundaries and cultural limitations and take all humankind as its student body and as its community of service?

J. A. Holmes once remarked, "It is well to remember that the entire population of the universe, with one trifling exception, is composed of others." And that has to be the view that we adopt when we think about our land-grant university in international terms.

When I first came to Illinois a long time ago, Adlai Stevenson was governor, and he was and remains an inspiration. He once said, "We travel together, passengers on a little spaceship, dependent on its vulnerable resources of air and soil; all committed for our safety to its security and

peace; preserved from annihilation only by the work, the care and the, I will say, the love that we give our fragile craft."

As the world's population swells, as our resources are degraded, and as economic and political alliances change, our national strength and our personal well-being are linked more closely every day to the rest of the world. We need a new American university that matches that new reality. Universities can no longer be ivory towers. They can no longer recognize only a local constituency. We must reach out to those beyond the campus, recapturing the land-grant ideals and translating them into the coinage of the twenty-first century.

In 1862, Abraham Lincoln, signing the legislation of the Morrill Act that created the land-grant university, declared, "The dogmas of the quiet past are inadequate to the stormy present. The occasion is piled high with difficulty, and we must rise to the occasion. As our case is new, so must we think anew." That is a good motto for today.

PRESIDENT RHODES: I was delighted to see so many people this morning and even more delighted and surprised to see anyone come back. There's an old story told about a bishop in rural England who was widely known for his incredibly elaborate and boring sermons. He went to a very distant rural parish one weekend and expected to see a great horde of people, but found there were only two people there to hear him. He turned to the vicar and said, "My good man, didn't you tell them I was coming?" The vicar said, "My Lord, I didn't tell anyone you were coming, but when I find out who did, I'll really take care of them."

I feel the same way about second appearances talking about education. Let me try and summarize in a kind of thumbnail sketch what I said this morning.

Following President Rhodes's summation of his morning lecture, the remainder of the afternoon session was given over to questions and responses. Moderator: Karen Hitchcock, Vice Chancellor for Research and Dean of the Graduate College.

VICE CHANCELLOR HITCHCOCK: One thing I would like to ask: We talked a lot this morning and in a discussion last night about the undergraduate model and the threat to it. You coupled that with what we're also reading about the disappearance of the liberal arts college either because they're going into more professional programs or because some, perhaps, now want to have extra research activity within liberal arts. I see that as a special crisis that the research university is going to have to meet, or a whole new structuring of liberal arts in American higher education might have to be

looked at. I'm seeing a threat at the research university context and also a threat because of the pressures on our traditional liberal arts colleges, and I wonder if you might comment on that.

President Rhodes: It's a very important question. I think you're right on both threats, and I think the pressures are coming from both those directions. I hope colleges such as Williams and Amherst will hold their ground and not become prebusiness schools and prelaw colleges and so on, but will continue to affirm the significance of liberal education.

I think on our university campuses that's a battle we have to continue to fight. Because one of the results of the model of knowledge as a personal profession, a career, is that even the humanities have been taught in a preprofessional sense at the undergraduate level so that even English 101 is largely concerned with deconstruction in ways that seem to me less beneficial than that might be in a senior course or a graduate course. On the other hand, that the notion that the liberal arts as viewed at the end of the eighteenth century have to survive forever has to be examined. I am convinced that more and more we shall see people enrolling in undergraduate programs that are essentially professional, programs like engineering, architecture, agriculture, and journalism. We may or may not think that's a good thing, we may or may not think it's much better for people to do an undergraduate degree as they do in medicine and then do their medical program. But even premed undergraduate programs look very professional to me. Therefore, it seems to me what we've got to do, especially those of you in the humanities—I'm a geologist and that's so imprecise I'd almost be a humanist in some senses— we've got to think about a new kind of liberal arts, which, instead of being an alternative to professional education, would really become a part of professional education. We would introduce these

humane concerns and issues, both quantitative and qualitative, through the engineering programs if that's the way to do it. I don't have a single recipe, but on a campus like this one with a wonderful mix of colleges that you have, there are probably opportunities for doing things that are quite rare.

Let me throw out one thought, for example. On my own campus, our medical school is 250 miles away from the main undergraduate campus, so interaction is very limited. You've got a wonderful opportunity just being half a mile away to think of some programs where you can bring people together. Now, the dean of the medical school will say there just isn't time, and the dean of arts and science will say there just isn't time, but think of the ways in which medical students doing their first rotation in psychiatry could read Hamlet together with undergraduates and could begin to have something in common. Isn't that a kind of approach to liberal education that we should be considering? Or students in engineering, for example, doing joint work with students in sociology, talking about the social parameters of certain technological developments. I think that kind of approach to a liberal education through the professional discipline—not instead of it or in addition to it—is one way we shall have to explore.

PROFESSOR MIODRAG RADULOVACKI, Pharmacology: You said that a goal for undergraduate students in the next ten years is to send them all abroad for international experience. What do you think are essential steps toward this goal?

PRESIDENT RHODES: I'm not sure I said that this morning, but you're right, it's in the paper. I said my hope was that by the year 2000 all our baccalaureate graduates could enjoy some kind of international experience. It might

be study, but financially that's tough for some of them. It might be work, or it might be a service project for a year with some international organization. I just think the whole undergraduate experience will be enriched by that. How we do it, I don't yet know. We've started on our campus, and frankly we're patching it together by working with volunteer organizations, groups like OXFAM and UNICEF, to get internships in other countries. We also have a big study abroad program and affiliation with the Oxford Famine Relief Program (OXFAM), working with children on nutritional projects in different parts of the world, and there are many others related to that. We've also increased eightfold in the last five years the number of students who study abroad. And we're doing that with great difficulty, because if there's a financial barrier, we will help. Since we have to scramble for those dollars from gifts and from tuition, we are really stretched to do that, but in five years the number of students studying abroad has increased eightfold. There's a big bottleneck, however, because what's happened is that 90 percent of our students graduating in architecture this year had studied in Rome; 0 percent studying chemistry or engineering have studied abroad. We've got to find a way to have our colleagues help us determine whether there are opportunities for the same kind of studies linked to the majors, not again in spite of the major, but not requiring four years foreign language study necessarily, but linked in some way to their professional development. We've got a whole patchwork of those arrangements. It's not at all clear to me if we're going to succeed, but at least we've made a start in trying to see if that is possible. We've has great enthusiasm from the students, a certain tempered response from the faculty. The faculty have not been the strongest advocate of this international experience, but as they themselves have become more involved in it, they've become much more enthusiastic.

Jay Levine, Dean, Liberal Arts and Sciences: Let me say, before I get to the point I want to raise, that in connection with your suggestion concerning cooperation between arts and sciences and medicine, we did make the effort some years ago before Jerry Moss was head. Sid Simpson, Head of Biological Sciences, was one of the prime movers on the committee that tried to work out a cooperative baccalaureate M.D. program with medicine that we hoped would have accomplished some of the aims and suggestions. We can give it another shot now that we have another dean in place.

I have a nagging kind of question in my mind that I'm going to try and frame, probably quite unsatisfactorily. Let's go back to the motif of sin and confession. Whenever we get together in the family, we all know where the bodies are buried, we all know everything we've been doing wrong and what we should be doing. Like most family arguments, it's fine as long as it takes place within the confines of the group. But here's what I worry about, and this may be strictly a rhetorical question rather than a substantive one. The research university, as you said, has been with us for only thirty years. It has existed by and large by sufferance of the population at large, perhaps because of their ignorance of what we've really been doing. There is a strain in American life that has often been studied called anti-intellectualism. What I'm concerned about now is that the redirection or new direction you're suggesting can be seized upon as some kind of vindication of the views of those out there who have always had these doubts about what on earth they are doing in these universities. It's a matter of the audience we are reaching with this kind of far-reaching proposal. For some it will justify the objections they have been making over the years in support especially of research and graduate education in America. For example, whenever higher education in our state is discussed, if it's discussed at all, it's discussed

entirely in terms of undergraduate education. We kind of sneak our concerns with regard to higher education past the state at large and the nation at large. It's very much the political reality in which we operate. So I'm rather concerned about giving more support for that basic anti-intellectualism we have tried to resist and accommodate ourselves to in one way or another.

PRESIDENT RHODES: That's a very thoughtful question, Jay. In the end you have to do what you think is right in a situation like this and then do the best job you can in explaining it to those who, in some cases, will not be very sympathetic. What fascinates me in a period when we're facing some very tough times, within the next decade let's say, is that universities like ours are in for a very rough ride in this decade, partly because of the overall economy and the whole uncertainty about energy costs, but partly because of the massive problems in K through 12 that may eat up whatever additional education dollars there are—and that's very understandable—that, plus a very tight state economy, public suspicion you've talked about, a) research and b) whether we're doing a good job with undergraduate education. All of that immense resistance to tuition increases, whether public or private, but telling us at the same time to get on with research in AIDS, do something about better teacher education, take care of the problems in the inner cities, help us with competitiveness, help us with social mobility, all those become even more pressing in a period like this.

I think there's a paradox in the public's expectations. But I believe we can explain the kind of direction I talked about in a way that is, first of all, faithful to the state. In other words, this global outlook doesn't neglect the state. In many ways it reinforces the economic health of the state. Second, I think research will not be downgraded; it will actually be

strengthened in the end by the kind of linkage we've got, it will become more a matter in the public domain. Not all research is going to change. Somebody working on John Donne's poetry probably won't change very much and I hope it doesn't. I don't think we want to get involved in social service projects, but there are some things where we do need to refocus our efforts. I think that will be understood by the public. In general the public has understood very well the county extension agent walking down dirt roads, covered with mud, and helping in the fields. If we can get people into the inner communities, working side by side without knowing all the answers but bringing whatever help we can to bear, I think there will be very positive response to that. Have I missed something or not?

DEAN LEVINE: What I had in mind was suspicions, misunderstandings, ignorance about what we would call basic research, pure research in the university other than the applied areas that you've described. I think those applied areas would be readily understood and accepted. But we do have, as you say, the scholar working on John Donne; we have areas within our disciplines in which there can be no immediately perceived social good. I think the emphasis on returning to or creating a global version of the land-grant institution will simply again heighten suspicions or contempt for that basic research that many of our scholars and scientists are committed to in our universities.

PRESIDENT RHODES: You may be right. I hope not. But we clearly have more work to do. One of our challenges is that most of us, myself included, are very poor public spokespeople on this. If the Congress cut the funding for NSF by one million dollars, there's an outcry. But for the rest of the year, I don't know where the fellow scientists are talking in Washington about the importance of basic research.

I had an interview yesterday with three people from *Time* magazine, and they talked at length about increases in tuition and the cost of higher education. I commented on the fact that in the foyer of our medical school there is a small statue, a memorial to a man who was in the Department of Anatomy for twenty-two years, taught anatomy courses but spent every night, every weekend, every spare moment working on cellular anatomy. His name was George Papanicolaou. Now how do you put a value on the Pap test? It had no relationship when he was working in this area to any known use. But I think we've got to maintain that all research is potentially useful. This quest for understanding, even in the most arcane areas, has potential long-term benefit for us. Biotechnology would never exist were it not for a small group of people twenty years ago working in the nation's universities, not in industry. I think we can quote enough examples of that to justify the support there is. I don't know about the local scene in Illinois, but in Washington I think that's a fairly strongly established commitment. We are the only nation that has a program where 50 percent of the basic research of the country is done in the nation's universities. The federal budget for R&D is $63 billion. Only a tiny part of that is basic research, but that's been increasing markedly over the last six years, a very substantial increase, about 51 percent in real terms. I think that's a public awareness, a long- term benefit, but it's never finished.

Professor Sidney Simpson, Biological Sciences: We've spent a lot of time bemoaning the loss of the university as a community of scholars who broadly interact. I suppose, being a devil's advocate, I would ask: Are we being sentimental about something that actually never existed? The reason I say that is that I came up with my academic career in the 60s in the sciences and outside of Marine Biological Laboratories at Woods Hole in the

summer. I'm not sure I would know what a community of scholars is in the sense that I have heard it talked about. In other words, in the university I know of very few faculty who seek any allegiance beyond their subspecialities, or maybe the department. So how do we regain this, or did it ever exist, and how does one redeem it?

PRESIDENT RHODES: It's a huge question. I don't think it's the kind of Camelot that never existed, but it's just a distant legend in the historical past that we now glamorize and eulogize. I think there was a time when universities were small enough and when knowledge was sufficiently compact to have a real discourse. Partly it's a function of size. I asked Seymour Raven a little while ago how big the campus is; I'm taken aback to find it's 25,000 students now. Last time I looked it was about 12,000 and suddenly it's 25,000. Not that sudden I know, but size has a lot to do with it. Even the design of the campus has a lot to do with it, and certainly the explosion of knowledge has a lot to do with it.

I think there are ways of getting around it that vary from place to place. On my own campus, for example, we have a faculty luncheon club. It's a building that has a large dining room where the faculty pay a modest amount every year. That does as much as anything I know to bring people together. It's easier for us, however, because we're a residential campus in a very rural community, and that's a completely different situation from one in this wonderful metropolitan area. I think we have an easier time, but I do think we gain from the kind of community we have, even though I know it's diminished as I say that. We also have a graduate structure that refuses to recognize departments essentially and has no requirements for the graduate degree except that you have to have a chair for a committee, and you and the chair choose two or three other people for the committee in any

areas you like for your graduate degree. They will tell you what your program is, what courses you're required to take, what exams, design the thesis. I think that brings us together in ways that continue to surprise me. I don't pretend it was ever quite what John Henry Cardinal Newman wrote about. I think he had rose-colored glass in front of his eyes.

PROFESSOR LANSINE KABA, Director, Black Studies: I am concerned about higher education in general. During the past twenty-five years, there has been a revolution in most disciplines. New units have been created. Such new areas of inquiry as Asian, Jewish, African-American, and women's studies have been established. Yet a certain closed-mindedness persists that is getting even stronger in its opposition to these new areas of inquiry. I would like to know your feeling about these new fields.

PRESIDENT RHODES: I think you've raised a very important question. What surprises me sometimes, and I guess it shouldn't by now, is how conservative all of us are, myself included, about our own profession, about our own community in the university. We're quite radical in designing problems for the rest of the world, but we're very conservative about our own affairs. I think one of the things we've been slow to recognize is the rapidity of growth and knowledge, and that's reflected in the kind of new areas of studies, gender studies, or Afro-American studies. We've recently started a program in Hispanic studies and one in Asian-American studies. We've a huge Asian program, but we didn't have anything in Asian-American studies. We've just started one.

I see two problems there that I think are transitional, ones I think we're going to grow out of. The first one is the danger that if we do that, we're then going to neglect that subject in every other area of the curricu-

lum. We say, okay, it's being taught in the center here so I don't have to think of this particular topic, whether it's women's studies, or Afro-American studies, in sociology or in history or anything else. Somehow we've got to get this incorporated into our general thinking in the curriculum.

The second challenge I think we've got is one we did talk about just a little this morning and that is whether it's good to have tenure in some of these newer centers as opposed to having them in the departments. I think there's not a perfect solution to that. My own preference, and I don't know if it'll work in Chicago or not, is to have most of the tenure in the departments, because before you're interdisciplinary, you've got to be strong in the discipline, and then you can with confidence go into other areas. You can be quite unconventional in what you do, but you've got the security of a good disciplinary education. I think that works very well for us. It's not a rigid rule. We've got some appointments that are not departmental, but not very many of them on a whole. We've got a few in Afro-American studies, a couple in Science Technology and Society, one in Biology and Public Policy. On the whole, the benefit of having them in the department is that you bring that concern back into the discipline of history or sociology. Does that make sense?

Professor Kaba: Certainly the model we have been following here is different from that at Cornell. We do emphasize a strong interdepartmental relationship. My concern is that despite this model there are faculty members who think these disciplines have no value at all.

President Rhodes: We've just changed our graduate requirements in arts and sciences. One thing we've put in, I forget the exact words, is a require-

ment for an understanding through course work of some time and culture other than our own, and that was a very controversial topic. It seems to me it's absolutely basic to what education is about. It's one of the most basic convictions most of us have, but it took a long time to get that through. It's surprising in some ways that we don't still have a Department of Alchemy on our campuses when you think of how resistant we are to those changes. So I understand what you're saying.

ELIZABETH O'CONNELL, Assistant Dean, Graduate College: This morning you talked about the lengthening of time for degrees for Ph.D.s. You remember back in the 60s the Ford Foundation was supporting efforts to reduce the Ph.D. program to four years; now Harvard's talking about that again. How do you feel about the lengthening of the degree? Do you think it should be shortened or the growth should be stemmed, and if so, how?

PRESIDENT RHODES: I think it should be shortened. I do understand that if you're in a certain area, for example, and have to pick up two new languages to pursue that—let's say you're in Middle Eastern archaeology, and you need two ancient languages to do that—it really does add to the time immensely. In most cases, that's not the situation. I think we're just requiring too much time for people to finish their degree. Partly that's financial because the job market's been tough, partly it's because we impose on people as TAs and RAs. We really do require very long hours from them and very hard work loads, and that slows people down. It's partly too because, frankly, most of us are not very good in planning ahead the next five years that student X is going to be with us and knowing that right at the critical time I or someone else is going to be away on sabbatical. So everything is held up because I can't read a draft quickly enough, copy that, or

help with this or that. I think we can do a much better job departmentally by that kind of planning ahead and even by the very simple step of putting a sabbatical timetable out, which is published so that people know what they can expect from their committees. But the time that we now take, more than seven years, I think it's unreasonable. When you look at the shortage of people we have, I don't know if these are any better at the end of twelve years—at one stage it was twelve years—the average time for a Ph.D. in philosophy. That's a very long time. I know the problems that philosophers grapple with are very tough ones, but there must be a better way of doing it than that.

GERALD MOSS, Dean, College of Medicine: The financial travails of the academic medical centers in New York are legendary around the country. Will you say a few words about why that is and how you at Cornell have tried to adjust it?

PRESIDENT RHODES: Well, it's very tough in New York. We're being helped at the moment by one of your former colleagues, David Skinner, who was chair of surgery at the University of Chicago, who has taken over as president of our hospital. We don't own the hospital as you do at the University of Illinois; it's affiliated with us, the New York Hospital. But we have 1,100 beds and about 97 percent occupancy, and we lost $59 million last year on it. That obviously can't continue very long, so we've done our best to tighten up. It was partly that we weren't ready for the DRGs when they came along, it was partly that all our record keeping and our book-keeping and our billing was antiquarian. It was partly that, I think, the faculty hadn't been encouraged to take a responsive, proactive role in this, but it was partly also the fact that the state of New York is more heavily

regulated in health care than any other state. I don't know about Illinois in detail, but we do operate in a very tough regulatory environment both in the state and in the city. So in New York City—we're in Manhattan—we get both of those. I think we've turned the corner. We've got a deficit this year, but it's a manageable one. We're close to the budgeted deficit of about $7 million, and with more pruning and fund raising we can cover that. Our difficulty is that we've got a hospital that is sixty-three years old, and there is only so much you can do to make that attractive to patients and efficient in terms of health care. So what we're staring in the face is the need to build a new hospital, and we still haven't got agreement from the state as to how many beds it will have. It'll be fewer than 1,100, but just how many, whether it's 500, 700, or 900, we haven't yet agreed with the state. So that's where we are. I'm encouraged, but long term I think there are very serious problems in health care delivery. It's a little like education; we've got the best tertiary care in the world, no question, if you're going to be really old, come to this country and get care, but we've still got a creaking health delivery system and an equally creaking reimbursement system. I don't pretend to tell you anything that isn't very familiar there, but it's one we're still struggling with.

DEAN MOSS: Has your medical education enterprise survived these remarkable deficits?

PRESIDENT RHODES: Yes, we're doing very well. The medical college is in good financial shape. We've had some very generous financial support. Another pattern of regulation in the state is the cap on the number of hours a week that a resident can serve. Dr. Axelrod, who's our commissioner, has been very active in that.

MARILYN NORMAN, Graduate Student in Education: This morning you said that we understand research and we understand teaching and that public service is a little more difficult to get a handle on. In fact it causes many of us discomfort. What are the questions we need to ask and answer to help our discomfort?

PRESIDENT RHODES: Tough question, tough because there is going to be more difference in the pattern, in the quality of service between disciplines than there can possibly be between teaching and research in most cases. So I think that's a question where discipline by discipline and profession by profession you have to put together an answer. Certainly if we had just been talking about medicine, I would hope that the whole question of patient care as well as the development of new surgical techniques and new studies of basic biology and so on are going to be part of it. But equally, we've somehow got to find room within a medical school for people who will study the economics of health care. That's a topic both for service and for scholarship that hasn't been very prominent. The allegation is that we're discharging people from the hospital sicker and quicker than we were before. I don't know if that's true or not; certainly quicker is true. I don't think sicker is true. But that clearly is an area where we don't have all the answers at the moment. The chairman of our board had hernia surgery for the third time about a month ago. He said to me, "The first time I had hernia surgery I was in for ten days, the second time it was three days, and this week I was out by three o'clock in the afternoon on the same day." Now that's a huge change in the pattern of health care. That's obviously very anecdotal, but it does seem to me to illustrate how even the most basic professional concerns are now enmeshed in a context of social aspects that

need very careful examination by the professionals, not by some other people coming in and purporting to tell us how to conduct our business.

Ms. Norman: But at the institutional level, we export public service. We need to provide that direction and that leadership.

President Rhodes: Yes, I agree to that. In other words, just to stay with health care for the moment, I hope very much that the new pattern of health care, whatever it is, is going to be designed by health care professionals—I include not just physicians but nurses, dentists, allied health people, pharmacists—and not left to the Congress or some other group to decide. I cannot imagine that there is not a contribution to be made there by the kind of wonderful assembly of health care professionals you have on a campus like this. And yet I must confess, I don't hear much of that happening. So for me, service could very well imply, in that particular case, the long-term design and development of new delivery systems, and there are obvious examples in many other areas.

Vice Chancellor Hitchcock: When you speak to the service component, when you were talking about contractual agreements with faculty for research, teaching, and service—on the service side, were you thinking that the university should take priority areas like health care delivery, like schools, like other areas and have prioritized programs? Is it that aspect of service that would be the reward as opposed to the individual committee kinds of involvement that normally occurs?

President Rhodes: I think the best way to solve that is college by college, and that's probably going to be in the bigger colleges, arts and sciences, for

example. I think that it will be department by department. My hope is that, just as presumably there is no great tension about a decision made a long time ago at university X to move into East European studies, when someone wants to work in West European studies, I don't think that will preclude work in other areas. But it does seem to me one of the big dangers here is to say we're going to reach out, say we're going to help the world, and to lack any kind of focus that is realistic in terms of being achievable. We've been guilty of that repeatedly in the universities. And the way you focused on the Chicago schools seems to me to be marvelous. What was it that we heard last night, sixty different programs? That to me is just tremendous. That's really a model for the rest of the country, and maybe there are half a dozen other areas. Now, you don't compel people to get into those programs, but if they choose to, you've gotten support from Kellogg and other foundations to help them. I hope in that noncoercive way we could begin to develop some priorities.

PROFESSOR BOYD KEENAN, Political Science: This morning your provocative comments about the possibility of a few institutions—land-grant institutions—becoming global raised some questions. Before you leave, I would like to nail you down with one proposal to see if it has any merit. Three or less years ago, the U.S. E.P.A. asked this campus to put together a symposium on the future of environmental research. We had invited Cornell, two University of California campuses, and our sister campus downstate to join us. We had a dean from still another land-grant school I won't name who argued that the best way towards developing a global environmental research capability was for us to persuade the deans. Evidently persuading the deans and department heads was the place to start to reward people who publish outside their thesis. An article in a reputable publication says

that publishing outside your discipline will get you probably twice or maybe three times as many brownie points for promotional and salary increases as publishing in your own field. And this was a seasoned veteran dean who said he was trying to do this in his university. Is this something you have considered, thought about, or is it a wild idea?

PRESIDENT RHODES: No, I don't remember saying that myself this morning, but I don't find that a wild idea. I don't want to get too proscriptive about brownie points or just how much credit for this or that because I think the weighting and measuring kind of CGS approach to tenure is one of the baneful influences on university campuses. But I do think if what I said about individual contracts makes any sense, part of that contract would be that you say to someone in the Department of History—we were talking about history a little while ago—I want you to feel very free to interpret your interests in nineteenth century history very widely, and if in the process you become more of a sociologist than a historian, that's just great. We'll protect you if you do that, because this makes sense institutionally to look at parallels here and there.

Now, I know great historians who were driven out of history departments because they were historians of science. What happens then is we get more fragmentations; we get a new institute for the study of science or a new department, and that seems to me to be everybody's loss, so I'd like a more flexible concept than the disciplines are more willing to provide. Does that make sense?

PROFESSOR ROBERT TISSOT, Assistant Head, Genetics: I'd like to go back to the model which you've assumed, that the research university can evolve into this new global university you're talking about. And yet when the land-

grant idea came along, they did not go to Harvard and say, "Would you take this on as extra if we give you some money." They created whole new institutions to do it and that also included it. I was wondering if you would say that this global university could possibly evolve from our universities, or would it be easier to create a whole new university that starts with that system?

PRESIDENT RHODES: That's a very thoughtful question. Let me tell you my own view. It should probably be an independent consortium associated with research universities like the ones we've been talking about. For this reason, I think part of the benefit of an independent consortium is that a) no university can do this alone, there's got to be some reasonable sharing of expertise here; b) we shouldn't be tied to conventional patterns of tenure and appointment. We've got to have freedom for short-term appointments on particular topics with people who can serve unusual roles under unusual conditions if we're going to make this work.

What I don't want to do is give up one of the great university libraries of the world, the University of Illinois. What is it—around six million books or something like that? On our campus, we take 62,000 periodicals, and you take more than we do. You cannot found a new university from scratch that will not only subscribe to those, but have all the back numbers going back over the many years that they do. Half the books in our library are in a language other than English; and you cannot build that up overnight. You have a supercomputer; you're one of the national centers and so are we. You cannot build additional institutions, it seems to me, that have that sort of capacity. So I would take all the strength that we have in universities like ours and I would be very closely associated with that, but I'd give the freedom to be unshackled from that. It's got to be the

freedom to fail, too, because this is a very high-risk business, so someone's tenure mustn't depend on this, but they should have the opportunity to link in with it.

So that's what I'd prefer, a rather loosely affiliated consortium where students and faculty members would go in and out, but there would be a lot of people on short-term contracts, a lot of international people affiliated. You have this already, Stan Ikenberry was telling me, MUCIA. But I think there may well be consortia a little more focused than that one. Suppose we all decided that for the next five years we ought to offer whatever support we can to Eastern Europe as it becomes a more open society. We might take health care, social sciences, business education and management, maybe some others, agriculture. I think we could do a lot with a kind of ad hoc consortium on that basis. Trouble is, it's nobody's responsibility. I don't know how you find out what's going on in Eastern Europe; I certainly don't know. But if we got together, I think we could put something together there. We're all so busy, rushing off to the next appointment, I don't know if it's ever going to get done. I don't know where the financing is coming from. That's another question, but I think if we had a good plan, we could probably get the financing.

SPEAKER DID NOT IDENTIFY HIMSELF: Regarding the common quest from the student's point of view and the need for networking and linkages that you've emphasized, both local and global: It seems to me that there are a lot of activities in the nation, mostly with the smaller colleges. We have work study programs and we have study abroad, to give two examples. And really you seem to be asking that we should do this on a much bigger scale, and you indicated that you're doing this at Cornell. It seems to me that this

might even turn out to be the defining activity of your first model, this global business that you expect automatically when you're a student at university, that you're going to go abroad. Of course, as you know, the small convents do it; they have a nice place in London, Rome, or somewhere. But this can be done on a much bigger scale using universities that are closed in the summer or whatever. Again, there are two aspects to it: There's the abroad part and then there's the work study program, which also seems to be more imaginative here in this country. You know one of the schools, Northeastern, and in Ohio, Antioch and so on. Seems to me they're admirable, but we don't need much here in Chicago; that's too much work. They don't need that experience, but they need the other, where other places will need the work study as well as the abroad thing. But as you said, at the turn of the century you hope every student would have had the chance to go abroad as part of his experience. Maybe looking back in fifty years, the defining characteristic of this new phase would be this feeling of mobility, of going abroad or working within your own country. This is something really to work towards.

President Rhodes: Well, you have such a rich cultural and ethnic background in this city that you've got a flying start; even the languages are in place in some cases. But I think you're right, it could be perhaps the most significant contribution we make as institutions, that we produce people who have what I called global competence this morning. But it's more than just competence; it's a sense of global responsibility and obligation. You know we produce almost half a million graduates a year, our universities collectively, the land-grant universities. Think of that with people who are open to a sense of their obligation to the wider global community. That's a very powerful, positive possibility. We could appreciate other cultures that

have a sense of what it means to serve in other places in other roles. That could really change the shape of things.

SAME UNIDENTIFIED SPEAKER: The common market in Europe, they're already talking in educational terms. That's a good example.

PRESIDENT RHODES: Yes, it's a good example because the Erasmus scholarships or fellowships are holdable in any university on the common market, and a citizen of any country can go to any university and any other common market country. I think this really is going to change the way we think of our campuses. We count the number of in-state and out-of-state students; ten years from now that will look antiquated.

LEOPOLD SELKER, Professor, Medical Social Work, Associated Health Professions: Judging from the questions you have had already on the related points, you gave a fetching description this morning of the global university and certainly this intellectually attractive address to a whole host of our unmet needs, not the least of which is our need as an agent to become more competitive as well in various markets around the world.

We turn once more to the aspect of successes in one's immediate community. We find ourselves immersed here in an urban community that is very needful. It seems to me it would be something just short of an obscenity to have a university that would have some kind of global notoriety, but also a record of not being very responsive to one's immediate community. If in fact the world is shrinking, would not some major innovative way of addressing the needs of the immediate community, some kind of global attention be a competitive advantage or strategy of the environment we find ourselves in? I'd like you to react to that as a concept.

Then secondly, what is Cornell doing apart from indigent care in New York City that would represent a major innovation that relates to reaching out to a very needful community?

PRESIDENT RHODES: Those are two very good questions. Let me take the second one first. What are we doing? Not nearly as much as we'd like to, but we're doing quite a bit. Our problem there is, the city teeters on the verge of bankruptcy, and the moment you talk to anyone, whether it was Mayor Koch or Mayor Dinkins, about more joint programs, you get a positive but not a very helpful reply. We are in things as different as urban gardening for young people, rebuilding derelict housing in the Bronx, a whole variety of volunteer programs with the young people, a big nutritional program, a big consumer education program. And all in all, I think working with thirty or forty different community organizations is a drop in the bucket. It's not nearly enough but it's a start, and I think it's a model on which much more can be built.

But then to come back to the first question, which is the more general one. Nothing I said was meant to imply that we should shift our focus from local problems; if I implied that, I didn't intend to. I think you're doing a tremendous job in the community. I mentioned education, but I could just as well have mentioned some of the other issues we talked about. My reason for emphasizing the global this morning was because, as I said at one stage, I'm here to learn about how to help the urban community, because you're so far ahead of us that I need to learn from you, and that's a fact. But I think many of the issues we do face. For example, the environmental issues that are locally troublesome to us are not strictly local issues. Almost every environmental issue is clearly a global issue. And curiously enough, our methods of addressing those are what I call the "one-meter-

square ecology." We do all our ecology on one- meter grids, then we subdivide that into centimeter squares, and then we get down and analyze the contents. Much of our work on the campus is one-meter-square ecology. You think of the way economics has fled from real problems. I was talking to the dean of the Journalism School on Monday and she said to me, "You know the trouble with the journalism faculty is that it's less and less willing to have anything to do with the practice of journalism." It's increasingly made up of people who write Ph.D.s on the influence of the glossy magazines between the years 1925 and 1931, upon sales of this or that in certain communities. I have a feeling that if we, as those concerned about this, are willing to say, "Look, there is something positively beneficial in linking what you're doing in the neighborhood," then I hope there will be even more of that. That's not an alternative. I don't think we can have outreach without inreach, and I said that this morning. They go together.

PROFESSOR RADULOVACKI: Just two more questions. You mentioned that now that Eastern Europe has been opened up, we could help them in health science, economics, and math—that is something we could do for them. What would be our benefit? In this international exchange of students, you mentioned that the response of the Cornell faculty was tempered. My second question is: Does that mean that the administration has to take the lead and initiate this action?

PRESIDENT RHODES: What can Eastern Europe do for us? I think many things, but I don't yet know specifically what. In health care for example, we were talking a moment ago about the fact that we have a wonderful tertiary health care system, but we have much to learn in terms of delivery of primary health care. Maybe there's something that we can learn firsthand

from Eastern Europe. Maybe there are ways in which our primary schools or secondary schools can learn from them. We're desperately in need of all the help we can get. I think we won't know, but certainly their coming to us as visitors will enrich us. Their view of European history, their presence on our campuses is going to be a wonderful benefit to us, and that's already beginning in a modest way.

The second question on faculty reluctance—I guess that's not too strong a word—to become really involved in this: I've been surprised that faculty members in the Department of German, for example, are not enthusiastic about students spending a year or a semester abroad, not just learning the language but using the language in everyday situations. I regret to say that sometimes that has been the case. I also have to say that, once administration did take the lead and say this is what we're going to do, there's been a growing responsiveness on the part of the faculty. So I think there's a natural reluctance to be protective. We were talking a bit earlier about the fact that we're all very conservative about the way we do things, at least on my campus, and there just might be a few people on this campus too. I think that's a pattern of growth that we're going to see changing. On the whole, this support is good, including arrangements where faculty members themselves have gone abroad as part of these programs. We've not followed the model where we build a Cornell Center in Oxford or some other campus or Bejing, because it seems to us that's just a new kind of ghetto. If you really want that, you shouldn't leave Ithaca, New York; you should have stayed in Tomkins County. So we've pushed our students out into the residence halls and into the homes, and that's been very tough going for a couple of months. But in the end, I think they've benefited from that.

ALLAN LERNER, Associate Dean, Graduate College: I'm very excited and interested in what you have to say, and I think your view is an exciting one. What I've noticed—correct me if I'm wrong—is that you have a view in terms of the process by which we may get there that involves an optimism that, in one way or another, even those very much in the so-called Harvard model can and will be brought along. The anatomist will come up with a Pap test; the poet, I suppose, will not be at the head of the pack, but there will be some difference experienced by the poet and those who are colleagues of the poet. Something will change, even for him. But let me see the glass half empty for the moment and suggest the possibility that if we move from a Harvard model to the discovery model—the global model you talked about—for the time in transition and perhaps permanently, everyone will not come along. Internally we may experience a broadening of the cultural difference within the institution, within the institutional culture. If you agree that is possible, would you still see the enterprise doable and a wise thing to do? I think I might, personally, and my assumption on how we could make the situation manageable would be eventually to allow those who want to be different to be different, and to develop more centers as you were talking about, but also "committees of scholars" the same way. We would consent to a parting of the ways—an amiable drifting apart within the institution—provided that there was, and would remain, an intellectual liveliness that unites us all. Would you accept that kind of means to your end?

PRESIDENT RHODES: Yes I would, and I think what would happen is something like this: If this idea has any merit at all, it would need a small coalition of universities to try and get it off the ground. Of the 3,300 colleges and universities we have, I can't see more than five or six trying this. It's a

high risk, and probably Harvard, Yale, Stanford, and Chicago and a dozen others shouldn't change at all. Maybe they should go on doing exactly what they are. But I think we need a few good universities that are secure with their own standing to be willing to go for this high-risk possibility, and I think even if it fails we've learned something. I think there's a real possibility it will fail. Within ten years we'd say it was a good idea, but it wasn't durable because nobody would fund it, or the faculty wouldn't participate in it, or some other good reason. I think the structure would still be intact, but I think another thing would happen: I think if it has the germ of success in it, in ten years you rotate roughly 50 percent of the faculty, 5 percent a year on most campuses, you'll attract people who share that sense of possibility and service and that over a relatively short time have a big effect on an institution. I think a lot of institutions probably shouldn't change. They'll get changed by incremental adjustments at the margins, and that's probably a very good way to do it for many.

VICE CHANCELLOR HITCHCOCK: Thank you, you've given us so much to think about.

PRESIDENT RHODES: Thank you, it's been very kind of you to welcome a long distance faculty member of Illinois back home. I enjoyed it, thank you.

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