

The 472nd Convocation

Address: "Intellectual Breadth and Responsible Leadership"

By Daphne Preuss

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I am very pleased to congratulate you on your accomplishments at the University of Chicago. You have explored the foundations of knowledge and in doing so have expanded your vision. By immersing yourself in the traditions of this outstanding university, you have learned to inquire, to reflect, to communicate, and to motivate. You have studied the achievements of the past, and have been trained to ask questions, to identify assumptions, and to challenge conclusions. You can now see a future that is filled with opportunity. You have not only honed your intellectual capabilities; your experiences at this university have given you a unique perspective on the world. You now rank among those most able to assimilate the events of our time and to navigate a morass of competing interests. Congratulations on a job well done!

The world today is very different from the world you knew when you began your work at the University of Chicago. On a day of celebration, I hesitate to mention the crises at hand; yet it would be remiss if we did not acknowledge the struggles that are ongoing. These struggles have already had an impact on you. They are defining events that have become embedded in your history; most likely they have altered your view of the future. I want to impress upon you that the unique intellectual breadth that you acquired here at the University of Chicago fully equips you to deal with these challenges. This education also places upon you a special responsibility. Society will look to you for responsible leadership. This ceremony symbolizes an inflection point; starting today, we all need your help to build a better future.

How can we feel optimistic about the coming years when so much seems to be collapsing around us? We are in the midst of a war that is so contentious that it has torn apart long-standing international alliances. We have awakened to the very real threat of terrorism, witnessing an ensuing wave of xenophobia that is shaking the foundations of our free society. Economies have been disrupted worldwide, and the very real link between economic gain and armed conflict calls into question the morality of our financial underpinnings. Diseases threaten an ever-growing

population, and the mobility of our modern society makes disparities in health care painfully obvious. The technologies that have rescued us in the past may threaten our future, and decisions of how best to employ technological advances are often bound by politics rather than scientific principles. In the face of these challenges, where are we to find hope?

At times like these, times of great turmoil, we need leaders with tremendous intellectual breadth, leaders who can draw on the experiences of the past, blending those observations with insightful and disciplined thinking to forge a path into an improved future. President John F. Kennedy wrote “Leadership and learning are indispensable to each other.” This type of leadership is contemplative; it does not rush to action. It is a leadership that is motivated by the principles of justice and fairness and whose actions are measured and appropriate. Such leadership is not swayed by political pressure; instead, it draws on the strong foundation of the ethical constructs of human society, mediates disparate views, considers a range of possible outcomes, and chooses a course of action with confidence. The kind of learning, the type of intellectual breadth that you have acquired at the University of Chicago provides you with a foundation for the responsible leadership we so desperately need. Your intellectual training will serve you well as you navigate the future—whether we consider the challenges at hand, or those not yet upon us, that future will call upon individuals with the intellectual capacity to make wise decisions and the moral fortitude to put them into action.

How does one make the transition from student to leader? Is it necessary to have a career in politics or law, or to have authority at a national level? Clearly, many University of Chicago graduates have achieved high levels of recognition, becoming attorney generals, judges, senators, university presidents, CEOs, distinguished authors, artists, and Nobel laureates. Some of you are undoubtedly individuals who will realize similar success. You may find that you will capture national attention through scientific achievement or political conquest; your messages might be communicated through art or literature; you may go on to have a distinguished career, to achieve fame, to become a celebrity. Yet you have learned here that leadership does not always arise from those in positions of power and influence. The anthropologist Margaret Mead often said, “Never doubt that a small group of thoughtful, committed, citizens can change the world. Indeed it is the only thing that ever has.” We find many examples of social changes that were initiated

by individuals who communicated a message with tireless determination, or technological changes that began with an individual who had an idea and then proceeded to capture the imagination of others. Regardless of the medium, regardless of your level of power, it is crucial that you remember that your family, your associates, your community, and our society will look to you for leadership. They will rely on the insights that you have gained, on your intellectual breadth and on your capacity for analytical thinking to guide their decisions. This leadership role is very real; graduating from this institution has placed that duty upon you. I encourage you to assume that role with great care, to realize your effect on others, and to think carefully about the ethical and moral responsibility that leadership entails.

As an example of how these transitions can be made, I would like to tell you a bit about my own journey. I am a scientist who performs genetic research; that arena has made me acutely aware of the weight that society can place upon us. When I was a student, I viewed myself merely as a laboratory researcher. I loved the day-to-day activity of working in the lab, mixing reagents, and finding answers. But as I was playing, the world changed. A revolution in scientific thinking was upon us. When I arrived at the University of Chicago in 1995, the DNA sequence of an intracellular parasite, a mycoplasma, had just been reported. It had 470 genes and 600,000 base pairs, and the world was buzzing with the achievement—never before had we learned so much about a single organism! In the few years that followed, we saw incredible progress. The DNA databases are now bursting with 28 billion base pairs; that information is growing at exponential rates and its analysis is taxing the capabilities of the best computational scientists. We now know ourselves like never before—we know the genetic code of a human being. Encoded within that information is an awe-inspiring wealth of physical, mental, and social possibilities. It is thrilling that we may finally be able to interpret those messages, to understand why we do what we do, and to make predictions that will allow us to avoid harm in the future. As these advances have taken place, the sociologic implications of such findings have become obvious. How will genetic discoveries effect law enforcement, health care, the economy or the environment? How will the general public assimilate the information rapidly enough to make informed choices?

If leaders do not step forward, transitions such as these are unlikely to have positive outcomes. If scientists are not thoroughly engaged in a broader process, they run the risk that their discoveries

can be used inappropriately to support political agendas. While this may at first seem to be a minor concern, it is a message that resonates at the University of Chicago; astounding achievements in the physical sciences were employed to change the face of the second World War. History shows us that this can happen in times of peace as well; scientific findings have often been used to buttress social and political policies. For example, in the first half of the last century, the eugenics movement did just that—genetic data were misinterpreted and misrepresented by those who chose to pursue a racist political agenda. Arguments that intelligence was a fixed genetic trait were advanced, and improperly performed experiments were used to support predetermined conclusions. As a consequence, the United States restricted immigration for forty-one years, thirty states launched sterilization programs, and the President and Supreme Court went on record in support of such policies. These false conclusions became engrained in our social fabric. Today we are still trying to shed the bonds placed upon us by eugenics.

Can one individual make a difference? I am convinced they can. I hold this conviction because I have embarked on this journey myself. Over the past few years, technology for genetically engineering foods has become politicized; while this technology presents risks, it also holds enormous potential to enrich our lives. My peers and I were distressed to read reports in the press that were scientifically incorrect. We spent long hours talking about the problem, but I soon realized that we were speaking only to ourselves. To exhibit the leadership that society has entrusted upon us, we needed to address a larger audience. So I began, in small steps, doing things that made a difference. I was amazed to learn that so many people wanted to help; they were simply waiting for someone to lead the way! All that was needed was a plan of reasonable action that seemed likely to result in meaningful change. Beginning with local discussions and expanding to more diverse audiences, my efforts eventually led me to address both the U.S. Congress and the United Nations. The issues were so complex that it was essential to draw upon many disciplines; it required input from people who understand global politics, trade, intellectual property rights, regulation, economics, social structure, and science. And this issue is not unlike many that we face today—more and more, an appreciation of the concerns of our time requires incredible intellectual breadth. Doing something about those concerns requires responsible leadership.

As I have reflected on these lessons and have considered the sweeping advances of our current age, I have realized that many concerns are still with us; science has brought us unprecedented advantages, yet it is still also misused, potentially to great harm. All disciplines, including business, theology, economics, philosophy, and history, face the same challenge—a rapidly expanding knowledge base must be harnessed to effect change on the challenges of today, and those changes need to be accomplished with sensitivity and moral responsibility. In the face of these challenges, the public is bombarded with information that requires an integration of many disciplines and perspectives. It is in this arena that your University of Chicago education will serve you well. More than many in our society, you have the ability to weigh the different points of view, to find the flaws in the arguments, to discern which comparisons are meaningful, and to respond with an articulate analysis that provides leadership for your peers, your community, and our broader society. Such action cannot wait; I urge you to find a problem and lead the way to its solution!

A few moments ago, I asked, “How can we feel optimistic about the coming years when so much seems to be collapsing around us? In the face of the challenges of today, where are we to find hope?” As I look at this audience, I have my answers. You are a source of inspiration. Your teachers here at the University of Chicago have done their best to convey knowledge to you, but, more than that, they aimed to impart upon you the intellectual discipline that you will require to evaluate and meet the challenges of the future. You have the intellectual breath. You understand what it means to be a leader. You can choose to embrace those duties with an attitude of responsibility. When I consider you, your achievements, and your potential, I see a future full of promise. Thank you very much, and congratulations!

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