

“Welcome to the University of Chicago” – The Aims of Education Address

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Of the dozens of persons who will say that to you during this orientation week, I am the only one who will keep on talking for another sixty minutes after saying it. I imagine that you have heard few such orations before and that you will hear few hereafter. A full-length, formal talk on a set topic is a rather nineteenth-century kind of thing to do. Even at the University of Chicago, this is the only such oration you will get. You will be glad to know that when you graduate four years hence, the speaker is asked to speak for exactly thirteen and one-half minutes.

It's no easier for me. This is only the third or fourth such oration that I've given in my life. And you're not an easy audience. You're preoccupied with new roommates, placement tests, and “Chicago Life meetings” numbers one through five. Your minds are weary with the endless junk we've given you to read. Your bodies are aglow with adrenalin, serotonin, and the various endorphins, not to mention the more urgent excitements of estrogen and testosterone. And you are in a very diverse set of moods. Some of you are eager to hear what I have to say. Some of you can't wait till it's over. Some of you are watching the noisy dude whisper loudly two rows in front of you. Some of you are sensing the aspiration and grandeur expressed by this Gothic building. Some of you are thinking that I, the speaker, have a very big nose. In short, you're a diverse lot and I'm a beginning orator and we have an hour together to think about the aims of education. Let's do it.

It is important that you develop some personal aims of education because there is quite a strong case to be made that, given who you are and where you are, there is no particular necessity for you to study anything for the next four years. There are three basic reasons for that. They are reasons that I think a growing number of students at elite American colleges suspect, at least from what I am seeing in my own classroom. So let's be frank about them.

First, as far as worldly success is concerned, you've already got it. That your future income will be huge and your future work prestigious and honored can easily be predicted from the simple fact that you got into an elite college. About 2.8 million people graduate from high school every year; 1.8 million of them start college; forty to sixty thousand of them will go to elite colleges and universities like this one. So, basically, you and your peers at similar places represent the top 2 percent of an eighteen-year-old cohort. Obviously you're going to do very well indeed.

Now of course the real work predicting your future success is done not by prestige of college but by other factors—mainly the things for which you were admitted to that selective college in the first place—personal talents, past work, and parental resources both social and intellectual. The estimate of your future worldly success that we can make on the basis of knowing those things already will not be improved much by knowing what you actually do here. Moreover, admission itself sets up a self-fulfilling prophecy; since you got in here, people in the future will assume you're good, no matter what you do or how you do while you are here. And of course we know, pretty certainly, that having gotten in you will graduate. Colleges compete in part by having high retention rates, and so it is in the college's very strong interest to make sure you graduate, whether you learn anything or not.

All of this tells me that nearly everyone in this room will end up, twenty years from now, in the top quarter of the American income distribution. I have surveyed those who graduated from this school in 1975—a group considerably less privileged by ancestry than yourselves—and can tell you that their median personal income is about five times the national median, and their median household income is at about the ninety-third percentile of the nation's income distribution. That's where you are headed. And let me tell you that in the eyes of the students starting college this fall at Chicago State University five miles south of here or in the eyes of the adults going to endless night classes at DePaul University downtown, that expectation is an expectation of extravagant success. As far as the nationwide success game is concerned, there's no reason for you to study here. The game is already over. You've already won.

Now many of you, of course, don't give a damn about those other students—young people and adults struggling to move up a few notches in the middle class. You're interested in living in Winnetka rather than Downers Grove. You may want to summer in the Hamptons rather than on Fire Island. Your idea of a

good vacation may be a hotel in Paris and visits to the Musée d'Orsay instead of a resort in Orlando and visits to Disney World. "Surely," you tell me, "my studies at the University of Chicago will have a big impact on those kinds of things. Surely they will determine whether I'm in the ninety-fourth or the ninety-ninth percentile of income. Getting a fine higher education may not affect my gross chances of worldly success, but surely they affect my detailed ones."

On the contrary. I have to tell you that there's no real evidence in favor of this second reason to get an education, and there's a good deal of evidence against it. In the first place, all serious studies show that while college-level factors like prestige and selectivity have some independent effect on people's later incomes, most variation in income happens within colleges—that is, between the graduates of a given college. That internal variation is produced by individual factors like talent, resources, performance, and major rather than by college-level factors like prestige and selectivity. But even those individual factors do not in fact determine much about your future income. For example, the best nationwide figures I have seen suggest that a one-full-point increment in college GPA—from 2.8 to 3.8, for example—is worth about an additional 9 percent in income four years after college. Now that's not much result for a huge amount of work.

I'm sorry to bore you with this income story but I want to kill the idea that hard work in higher education produces worldly success. The one college experience variable that actually does have some connection with later worldly success is major. But in the big nationwide studies, most of that effect comes through the connection between major and occupation. For the real variable driving worldly success, as all of you know perfectly well, the one that shapes income more than anything else, is occupation. Occupation and major are fairly strongly associated within the broad categories of nationwide data. But within the narrow range of occupation and achievement that we have at the University of Chicago, there is really no strong relation between what you study and your occupation in later life.

Here is some data on a 10 percent random sample of Chicago alumni from the last twenty years. Take the mathematics concentrators: 20 percent software development and support, 14 percent college professors, 10 percent in banking and finance, 7 percent secondary or elementary teachers, and 7 percent in non-academic research; the rest are scattered. Physics concentrators are similar, but more of them are engineers and fewer are bankers. Biology produces 40 percent doctors, 16 percent professors, 11 percent nonacademic researchers, and the other third scattered. Obviously, there are a number of seeming pathways here. All the science concentrations lead to professorships and nonacademic research. And biology and chemistry often lead to medicine. But there are also many diversions from those pathways. We've got a biology concentrator who is now a writer, another who is now a musician. We've got two mathematicians who are now lawyers, and a physics concentrator who is now a psychotherapist.

Take the social sciences. Economics concentrators—this is today identified as overwhelmingly the most careerist major—are 24 percent in banking and finance, 15 percent in business consulting, 14 percent lawyers, 10 percent in business administration or sales, 7 percent in computers, and the other 30 percent scattered. Historians are often lawyers (24 percent) and secondary teachers (15 percent), but the other 60 percent are all over the map. Political scientists have 24 percent lawyers, 7 percent each professors and government administrators, and perhaps 20 percent in the various business occupations; the rest are scattered. Psychologists, surprisingly, are also about 20 percent in the various business occupations, 11 percent lawyers, and 10 percent professors; the rest are scattered. Thus in the social sciences, the news is that there are lots of ways to go to law school and to get into business. And there are the usual unusuals: the sociology major who is an actuary, the two psychologists in government administration, the political science concentrator now in computers.

As for the humanities, the English majors have scattered to the four winds: 11 percent of them to elementary and secondary teaching, 10 percent to various business occupations, 9 percent to communications, 9 percent to lawyering, 5 percent to advertising; the rest scattered. Of the philosophers, 30 percent are lawyers and 18 percent are software people. I defy anybody to make sense out of that. Again, the connections include some obvious things and some non-obvious things. We have two English majors who are now artists and one who is an architect. We have a philosophy major who is a farmer and two who are doctors.

So overall there is some slight evidence of tracks towards particular occupations from particular concentrations, but really the news is the reverse. The glass is not so much one-third full as two-thirds empty.

Remember that only 40 percent of the biology majors became doctors. And, more important, remember that our alumni's experience shows very plainly that no pathway from major to occupation is ruled out.

The looseness of the connection between curriculum and career is even more obvious when seen the other way, from the point of view of the occupations. Our largest group was lawyers: 12 percent of my survey respondents. Of the lawyers, 16 percent came from economics; 15 percent from political science; 12 percent from history; 7 percent each from philosophy, English, and psychology; and 5 percent from public policy. There was at least one lawyer from each of the following: anthropology, art and design, art history, biology, chemistry, East Asian languages and civilizations, fundamentals, general studies in the humanities, geography, geophysical sciences, Germanic languages and literatures, mathematics, physics, religion and humanities, Romance languages and literatures, Russian and other Slavic languages and literatures, and sociology. You get the point. There is absolutely no concentration from which you cannot become a lawyer.

What about doctors, 9 percent of the sample? These are much more concentrated, because of the prerequisites of medical schools. Sixty percent of the doctors came from the biology concentration and 17 percent from chemistry. However, there was at least one doctor each from anthropology, classics, English (four of them, in fact), history and philosophy of science, ideas and methods, mathematics, music, philosophy, psychology, public policy, and Romance languages and literatures. While the main pathway to medicine is obvious, it is by no means the only way in.

The other large group among alumni is in banking and finance (also about 10 percent). Of these, 40 percent came from economics, 8 percent from psychology, 7 percent from political science, 7 percent from English, 6 percent from mathematics, 5 percent from public policy, and 4 percent from history. Again there is a dominant route in, but there are many routes beside the dominant one.

I am sorry to list all these things for you, but I want to eradicate in your minds the notion that there is much of a connection between your college curriculum and your eventual career. There is, to be sure, what social scientists are fond of calling an elective affinity; there are concentrations whose graduates are slightly more likely to end up in certain careers than others. But there are no concentration/career connections that are ruled out, and there are no obligatory tracks of any kind.

So the second basic reason for working hard in some particular form of study is wrong as well, at least in this college. With the exception of those planning to become professors in the natural sciences, there is absolutely no career that is ruled out for any undergraduate major at the University of Chicago. What you do here does not determine your occupation in any way. You are free to make whatever worldly or otherworldly occupational choice you want once you leave, and you do not sacrifice any possibilities because you majored in something that seems irrelevant to that choice.

As far as performance in college is concerned, there is not, as I said, any national evidence that level of performance in college has more than a minor effect on later things like income. And in my alumni data, there is absolutely no correlation whatever between GPA at the University of Chicago and current income. Get it straight. Whether you end up on Fire Island or in the Hamptons depends largely on things that are unrelated to what you do as an undergraduate at Chicago.

I hope then to have disposed of the notion that what you do here or how well you do it has any connection with your worldly success either in general or in detail. The general level of that worldly success is already guaranteed by your admission here and by the factors that made it happen. The detailed level of your worldly success depends largely on occupational choices that are unrelated to what or how you do here.

Now the third reason for getting a college education is that it will give you foundational cognitive skills for later life. Since this is the argument I have myself made most strongly in the past, I shall take special care to demolish it.

The argument is that college teaches you not so much particular subject matters as it does general skills that can be applied throughout your future life—in graduate training, at work, and in recreation. That the actual material learned in college doesn't matter much is well known. Everyone over thirty knows that, as far as content is concerned, you forget the vast majority of what you learned in college in five years or so. But, so the argument goes, the skills endure. They may be difficult to measure and their effect hard to

demonstrate. But they are the core of what you take from college.

Now what people have in mind here in the first instance are simple verbal and quantitative skills: things like advanced reading and speaking abilities that will help you deal with a knowledge economy, and quantitative training that will enable you to make reasonable financial choices and that will prove useful in area after area of professional endeavor. Beyond these lie more advanced skills: critical reading ability to see through the lies of newspapers and stock prospectuses, analytic ability to formulate complex programs of action at work, writing ability to make your ideas clear to your peers, independence of mind to free you from others' views, and capacity for lifelong learning to enable you to deal with the changing needs of work and enjoyment over the years.

There is much evidence that our own alumni, alumni of equivalent schools, and national alumni samples all believe deeply that such general skills constitute the crucial learning in their college experience. Alumni always note the loss of detailed knowledge from college, while they always emphasize their retention of general skills that they use in all walks of life.

But the evidence that college learning per se actually produced these skills is pretty flimsy. While we do know that people acquire these skills over the four years they are in college, we are not at all clear that it is the experience of college instruction that produces them. First, the kinds of young people who go on to college, and certainly to elite colleges like this one, are quite different from those who do not. If in our analyses we do not have perfect statistical control for all those differences, college may appear to have effects that in fact really originate in the differences between those who go to college and those who don't.

To this selection bias effect (as it is called), we can add the equally difficult problem of unmeasured variables. Changes that we might attribute to college instruction could actually derive from other things. College students are likely to have more challenging jobs, for example, than students who don't go to college. They spend more time hanging out with smart people. They live in an environment where cognitive skills are explicitly valued. The differences of skill could be produced by these things rather than by the actual educational experience of the college classroom. Moreover, since many cognitive skills cannot be shown to differ seriously between those who have experienced college and those who have not, much of the skill increase could come from simple maturation. You could get more skilled just because you've lived a few more years.

Our belief that college education has cognitive importance rests pretty completely on our belief that we can statistically solve these problems of selection bias and unmeasured variables, because the only non-statistical way of handling them is controlled experiment. And no one has ever taken a thousand bright, ambitious young people like yourselves and sent them not to college but instead to some other, equally challenging, intellectual environment that did not involve classroom instruction, courses, curricula, and so on. Suppose you could spend the next four years going through a structured rotation of working internships in businesses, not-for-profits, and government agencies, where you would not be instructed in classrooms but would simply be left to pick up skills the same way everybody else there does: by asking friends and coworkers what to do, by reading a manual here and there, or by going to some organizationally sponsored classes on particular necessary techniques. You might still live in dormitories of some type. You might still have an extracurricular life. But there would be no classroom instruction. Now I submit to you that in all but a few areas—the hard sciences and perhaps engineering—you would be every bit as ready for law school or business school or management consultancy or social work training as you will be after your four years in classrooms here.

That this is likely to be true seems pretty clear from the statistical evidence that we do have about the net effects of college study. Let me summarize it as follows. First, there is no consistent evidence for a substantial net effect (say a 20 percent or more positive effect) of college instruction on oral communication skills, written communication skills, general reflective judgment, or intellectual flexibility, although there is moderate evidence for some kind of minor effect in all these areas. Second, there does seem to be consistent evidence that college instruction has a medium-sized effect (a difference of about 10 to 15 percentage points) on general verbal skills and general quantitative skills. But this seems to be a matter of "use it or lose it" rather than of learning new skills. College simply makes you keep using the skills you learned in high school, whereas many forms of employment don't. So people who go to college maintain their

skills, while those who do not go to college regress. Finally, college does seem to have a substantial net effect in the area of critical thinking. However, the research on that topic has often not been controlled for age, which makes it difficult to separate out the effect of college attendance from that of sheer maturation.

Now these findings are not all from elite colleges but from various samples at various levels throughout higher education. But we can still infer from them that there is not much evidence for a large net effect of college on cognitive functioning. That boils down to saying that you were smart people when you got in here and you're going to be smart people when you get out, as long as you use that intelligence for something—it doesn't really matter what—while you are here.

All of these statistically observed effects are effects of college versus not attending college, which means effects of college versus low-level, unchallenging employment or even unemployment. There is, as I noted earlier, no explicit comparison whatever of college with some other intellectually challenging activity. Implicitly, of course, we have experiments going on about this all the time. Data on the forty or so elite colleges in the United States (the so-called COFHE schools) tell us that there is wide variation between those colleges in the amount of time typically devoted to studying. There are places like Brown where it is possible to be a full-time newspaper writer for one's entire undergraduate career—treating class work as a more or less irrelevant aside—and there are places like the University of Chicago where it is not possible to do that. And, of course, within a school some will work extremely hard on studies while others may put equally huge amounts of intellectual effort into other things like orchestra or creative writing or comedy or whatever. But nobody has yet measured those alternative intellectual endeavors in a way that could test their net effect on cognitive development as opposed to that of classroom-related work. Nor has anybody tested the probably erroneous prediction that students at colleges where large amounts of class- and homework are done actually do better later on in some worldly sense or even in measures of cognitive achievement.

So the first pieces of evidence against the argument that “college education will teach you general skills that are centrally important in your later life” are

1. it isn't really evident that these skills arrive independent of natural maturation;
2. if they do it is not clear that college education per se produces them; and
3. there is no evidence that there are not other kinds of intellectual challenges that would produce the same skills.

Now the second broad class of evidence on this “cognitive skills” argument has to do with whether these skills actually are of central importance in later life. You probably already suspect that you will learn most of what you need to know to be a lawyer, doctor, or businessperson in the professional schools for those occupations, not in college. And those of you who become doctors will find out soon enough that biochemistry and other such elaborate scientific prerequisites are of very little interest or use to practicing physicians. Indeed, it was not until well into the twentieth century that medical schools universally required heavy-science B.A.s of their matriculants. Moreover, elsewhere in the world, medicine, law, and business are quite commonly undergraduate, not graduate, degrees. So there is quite a variety of suggestive evidence implying that college-based skills are not crucial to later professional life, the opinion of alumni notwithstanding.

But let us push further. Take the standard list of undergraduate skills and run them by the occupations most of you are headed for, and let's see whether the professions really employ those skills. Recall that the skills concerned are critical thinking, analytic reasoning, lifetime learning, independence of thought, and skill at writing; these are the big five that showed up in my alumni data, that were also dominant in the equivalent COFHE data, and that feature prominently in national studies—not to mention in college viewbooks. Are these things in fact necessary in law, medicine, business, and—let's get to the real dirt—academics?

Lawyers. The real activity of elite lawyers is to find business, to make contacts, to lead legal teams, and to oversee young associates. The young associates need to know how to write and to have analytic skills. But too much critical thinking will get them in trouble, and independence is likewise problematic. As for nonelite lawyers, the vast majority of what they do is conveyancing, divorces, wills, companies, and the occasional personal injury case—virtually all of which they learn on the job after law school, taught in many cases by their clerical staff. That the tactics of great litigators are not learned in the classroom any

one of those litigators can tell you; a background in drama is more useful than one in law. And having a deep and critical command of law itself is not useful to anybody but law professors and perhaps a few judges. So it is hard to make a case that the big five cognitive skills matter anywhere near as much for lawyers as do skills for getting along with people, for working in coordinated groups, and for clarifying and simplifying problems and selling those clear simplifications to various audiences.

In business, it is more or less the same. Those of you who go into business will never have to write well in the sense that I or some other professor uses the term. You will have to reduce things to bullets well; you too will be in the business of simplification and clarification. And you will have to work well with others and indeed will need to shelve a large part of your independence. You will have to put your critical thinking under very strict control, as Bob Jackall has so brilliantly shown. General analytic skills will be very important to you, but, again as Jackall and other students of management have shown, the crucial analytic skills for business managers lie mainly in interpreting people and in decoding the kaleidoscopically biased types of information that flow through large organizations. These are not things we teach you a damn thing about in college. Our texts are not written by people who are trying to deceive you into doing what they want.

What about medicine? The vast majority of medical work, like legal work, is in fact routine—everyday application of a standard repertoire. More than business people and lawyers, however, doctors do have to engage in lifelong learning. Senior lawyers can leave new law to the associates under them, but doctors have to keep up. Like businessmen, however, they have no need to write, unless they are academic physicians. Nor is really complex analytical thinking often necessary. The medical division of labor handles that need by concentrating those skills in a few places and referring perplexing patients to them. By contrast, critical listening skills—those are essential. Ability to understand what another person is trying to tell you is a foundational skill for a working physician. But we don't give any formal instruction in it at all (and indeed there is little enough formal instruction in it in medical school).

Finally, what about professors? Do they need these skills? Well, by now you've probably seen that what's really going on is that the list of major cognitive skills everyone talks about is in fact the stock in trade of elite academics themselves. (I should of course say "ourselves.") Critique is rewarded, analytic skills prized, writing necessary, independence and self-learning essential. To a considerable extent it is indeed true that the famous skill list is really the academics' list. Now I could make a case against the centrality of these values even in academia; most college professors work at nonelite universities with heavy teaching loads of unmotivated students and find little enough use for those skills. But even without this demonstration, it remains true that most of you will not in future occupational life need the specific kinds of cognitive skills that are emphasized in higher education. The most obvious example is writing. We at the University of Chicago will obsess about good writing. But the blunt fact is that most of you will do very little writing over the rest of your lives; the major reports and legal opinions and company prospectuses and so on that you do will all be produced by committee and will be designed to tell an audience what it wants to hear or what it will find persuasive, not what is analytically correct.

So we have good reason to doubt not only the first part of the statement "College education will teach you general cognitive skills that are centrally important in your later life," but also the second. College instruction cannot be proved to be the source of the skills thought to be important, and, moreover, they probably aren't that important.

Let me, finally, dispose of yet another variant of the cognitive argument for college education—the notion that there is a particular body of material that constitutes cultural literacy and that it is the duty of liberal education to teach you some large fraction of that material. I call this the lingua franca argument, for the canon so taught is meant to be a kind of lingua franca between "educated" people no matter what they currently do. The lingua franca argument goes back to the great elite institutions of Europe—nineteenth-century Oxford and Cambridge, the École Normale Supérieure in Paris, and similar institutions throughout the continent. As social elites passed through these places, they learned huge quantities of Greek and Latin prose and poetry by heart. Later in life, they quoted these phrases to each other in parliamentary speeches and casual club conversations and so on. The quotes functioned as a kind of secret code that labelled elites and also made a useful common cultural vocabulary. One didn't have to puzzle out

anger abstractly. One could rather talk about Achilles sulking in his tent. Indeed, I can remember quite a few people envisioning the Vietnam War as America's equivalent of the Athenian expedition to Sicily where, in Thucydides' immortal sentences,

[quotation in Greek, Thucydides 7.87.6]

Yes, that's right. It doesn't mean anything if you don't know Greek. A canon works only if everybody who is supposed to have it agrees on what it is. A hundred years ago, half of you would have known what I was saying. (Maybe I would, too.) But the situation of our current educational system is that since nobody in fact agrees on what the canon is—even in the broadest terms—the system definitionally does not have a canon. In fact, there is a common culture of examples and rhetorical figures in America today. But most of it comes from sports, entertainment, and current events. In short, there is not an academic or high cultural canon, and to the extent that there is a canon of another kind, professors aren't especially expert in it.

Perhaps the one thing we can save from this wreck is what I shall call the gymnastics argument. This is the argument implicit in my discussion of replacing college with a rotation through large-scale internships, as well as in my noting that writing full time for a newspaper may be as intellectually challenging as doing work in classrooms. On the gymnastics argument, it doesn't really matter what you do intellectually in the next four years as long as it is intellectually challenging. Any kind of strong intellectual exercise will develop or at least maintain your intellectual skills. Since it happens that the type of exercise most easily available is college instruction itself, you might as well take advantage of it and get your exercise there. It's like going to the intellectual health club on the next block rather than bothering to drive downtown to the Chicago Intellectual Athletics Club.

The gymnastics argument was in fact at the heart of the reform of nineteenth-century Oxford and Cambridge. Nobody thought that learning Greek was going to directly help you rule India. But a person who could truly master Greek or vector calculus could be trusted to learn whatever was necessary to govern India, so they thought. Having once had the experience of extended and difficult study, such a person could master anything. At its extreme, this argument led to an absolute ignorance of the real issues at hand; many a British colonial administrator was far more comfortable with aorist middle subjunctives than with subaltern populations. But as a pure intellectual discipline it was a great idea. Unfortunately, as this example and my previous discussion of professions make clear, maybe later work is not mainly about intellectual matters at all, so maybe the intellectual gymnastics exercises are truly irrelevant.

Let me pull my argument together about what are not the aims of education before turning, in the time remaining, to the question of what those aims are. I have shown first that your general level of worldly success does not depend on your study here—indeed that success is already pretty much guaranteed. I have shown second that your detailed level of worldly success is a function of occupational choices that will come after your time here and that will be largely unrelated to it. I have shown third that there is no strong evidence that college instruction gives you cognitive skills not available elsewhere and fourth that the much-vaunted basic intellectual skills may not in fact be the most important skills either in professional school or professional life. Nor finally is there any reason to believe in a canon, since said canon is manifestly absent in actual American life. The sole thing I am willing to grant out of this whole discussion is that college instruction may be justifiable as a form of mental gymnastics. But lots of other things might serve that purpose just as well.

So the long and the short of it is that there is no instrumental reason to get an education, to study in your courses, or to pick a concentration and lose yourself in it. It won't get you anything you won't get anyway or get some other way. So forget everything you ever thought about all these instrumental reasons for getting an education.

The reason for getting an education here—or anywhere else—is that it is better to be educated than not to be. It is better in and of itself. Not because it gets you something. Not because it is a means to some other end. It is better because it is better. Note that this statement implies that the phrase “aims of education” is nonsensical; education is not a thing of which aims can be predicated. It has no aim other than itself.

There are two parts to this denial that education has aims. The first concerns the future. By saying that education does not have aims I mean that we should not want education now in order to get something later, whether that something is further education or something else entirely. The second argument

concerns the present. By saying that education does not have aims I also mean that we should not want education in order to use it for something besides itself in the present.

Let me begin with the first of these. I have already shown at some length that if there are extrinsic aims of education, they do not lie in the future. Insofar as we can measure, education in the sense of college class instruction seems to have little to do with your future worldly success or even with your future cognitive functioning. But even setting aside my earlier social-scientific approach and thinking theoretically for a moment, the central problem with thinking that education has aims in the future is that the world and our knowledge of it and our ways of thinking about it will all change fundamentally by the time that future arrives. No matter what area of endeavor we consider, the facts concerning that area and the very theories and concepts by which we understand it change perpetually. Medicine, law, business, physics, architecture, farming, social work, you name it—its knowledge basis will have changed in important ways between your graduation from college and the time of your tenth reunion. Not only the facts and materials, but even the deep skills involved in these areas change with remarkable speed.

The situation becomes clearer when I state this change not in passive but in active terms. Changes in knowledge happen not just automatically, in some disembodied way, but because people envision them. Thus, people find new facts and materials because they look for them. They make new theories and methods because they want to replace older ones they now find unsatisfactory. But whoever we are—doctors or lawyers or farmers or accountants—we have to be able to envision these new ways of thinking about the world and of doing things in it if we are going to bring them about. So our education cannot consist of mastering disciplinary or professional material or even general skills. To the extent that you master and then reify those things—turn them into fixed, concrete rigidities—you will be unable to imagine the things that will replace them. No, to be able to transform and change and renew the ideas you work with you have to master something that enables you to see them from outside. That something is education.

This argument rejects the common idea that the aim of education is to give you the skills to survive the rapid changes in the first-level materials of knowledge. That is because the skills change, too. Writing was a far more important skill a century or even half a century ago than it is today. Now we could move up yet another step by talking about formal education at a third level—education in skills of envisioning how to change skills. But every time we move up a level in this way, we are thinking less and less about the future and more and more about a kind of constant of intellectuality—a set of mental habits that are enduring qualities of a mind. To the extent that we escape the trap that historical change presents for concepts of education, we escape it by moving to a less and less temporally directed concept of education. We move from thinking about the future to thinking about an enduring quality of the present. In short, even when we argue in this theoretical style, we do not find that education has aims in the future. Any serious concept of education seems inevitably to root itself in a state of being that endures—one based in the perpetual present of the self.

Note, incidentally, that in the process of denying aims of education in the future I have also disposed of the notion that education means learning a bunch of particular contents. I have already given a down-market rejection of that argument in its lingua franca guise. But the problem of the steady change of ideas (or viewed from the more active side, the problem of the perpetual need to imagine new ideas) demolishes the notion that the essence of education consists in mastering certain contents or materials. You are not little birdies sitting in the nest with your mouths open to receive half-digested worms of knowledge regurgitated by the faculty. Education is not about content. It is not even about skills. It is a habit or stance of mind. It is not something you have. It is something you are.

But now, having disposed (yet again) of the notion that education has aims in the future, I turn to my assertion that education does not have any aim in the present other than itself. I shall not argue this negatively, as I have argued so far, but rather positively, by showing that education in the sense I shall define it is a good in itself. If it is good in itself, we don't have to care much about whether it has other uses. They are mere by-products and hence of no substantive interest.

By education I am going to mean the ability to make more and more complex, more and more profound and extensive, the meanings that we attach to events and phenomena. When we are reading a text, we call this adducing of new meanings interpretation. When we are doing mathematics, we call this

giving of meaning intuition and proof. When we are reading history, we call it a sense of historical context. When we are doing social science, we call it the sociological imagination. In all these areas, to be educated is to have the habit of finding many and diverse new meanings to attach to whatever events or phenomena we examine. We have lots of standard routines for doing this—interpretive paradigms, heuristic methods, theoretical schemes, investigative disciplines, and so on. But education is not these paradigms and methods and disciplines. Rather it is the instinctive habit of looking for new meanings, of questioning old ones, of perpetually playing with and fighting about the meanings we assign to events and texts and phenomena. We can teach you the paradigms and the methods, but we can't teach you the habit of playing with them. That's something you must find within yourself.

Now after all this buildup, that may seem like saying education is not much. "I can already do this," you say. "Meanings," you say, "I can give you ten meanings for your last paragraph. Not a problem. Moreover," you say, "why should that be a good thing? Who gives a damn about all this new meaning? It's just blowing smoke. Let's cut to the chase."

Well, in the first place, I'm not at all sure that most of you can play with meaning all that much. Because plenty of you are fidgeting in your seats wondering when the hell I'm going to finish. You are having trouble sitting still and thinking about one of the most important qualities of your life even for as long as fifty-five minutes. But if you've thought up all the new thoughts and imaginings you can generate about education in the forty minutes that have so far elapsed, maybe we had better dismiss the argument that you are—at least in this sense—fully educated already.

But the more important issue is the question of why attaching endless new meanings to things should be in itself a good thing? The answer is this: By attaching more meanings to things, by bringing more of experience under our current range of meaning and extending our range to embrace more things in more complex and abstract or sometimes ambiguous ways, we in effect enable ourselves to experience more of life in a given present, a given now. An educated person experiences more in a given period than does a noneducated person. This is not to say that there is something inherently bad or damaged about lives that lack education. An uneducated human life commands the same dignity as any other. But given the opportunity, you are a fool not to avail yourself of every means to extend your experience in the now. The quality of education is our central means for doing that.

"Boring," you say. "This argument is too abstract. It's not about anything. What does he mean education is a way of having more experience in a given period?" Well, let's talk about something that will get your attention. Sex. The argument I am making is essentially the following. Any animal can take off its clothes, rub and fondle a bit, arrange its sexual organs properly, and hump away till it's done. But the experience of sex will literally be better, in the sense that it will seem to take much more time (and of course you can make it seem interesting much longer) if you break up the preliminaries into foreplay and relaxation, if you turn aside from the straight path a bit and graze elsewhere, if you make the thing a complex conversation of bodies referring to dozens of different imaginations in your brains, rather than just bashing away as any animal can do. That's my argument. By increasing the density of meanings in an experience, you expand that experience. You make it more extensive and more enduring all within the same social and temporal space. Education is a way of expanding experience.

If you don't like that example, consider looking at a painting in a museum. Yes, it's easy enough to look at the painting and to come up with things to think about it. But how much richer they are when you know already the many different traditions of imagining the visual world, when you can understand the detailed references the painter made to those traditions, when your immediate knowledge of the painting's social and cultural context makes you literally see dozens of things that aren't there if you don't know those contexts. It's the same argument. The experience becomes "bigger" because you are educated. Not merely in the sense that you can look at the painting longer without being bored, but also in that within a single look you will see more. And note that education doesn't lie simply in knowing the whole of the dead list of facts and contexts of who taught whom and which style was which, but rather in taking such facts as you do know and playing with them and the painting.

Now note that in arguing that "educated sex" is better sex or that educated museum-going is better museum-going, I'm not arguing that you should, as it were, miss the main point, either of the sex or of the

painting. That is, because you have made the event more complex doesn't mean you have to lose the overarching sense of the simpler version. But it is true that you can't fill your brain endlessly—it has finite power. And so one of the crucial decisions you make about your education is how to balance breadth and depth. Because breadth too constitutes a way of expanding your experience. Complexifying is not the only way of making meaning.

Thus, I argue that education is good in itself because it expands the range of your experience, both temporally and spatially. Education means figuring out how to arrange the finite things you can know, their varying levels of abstraction and detail, their mix of skill and data, fact and theory, so as to maximize the potential array of meaning that you can experience in the now. Whatever your temporal and spatial present, education lets you live more within it, by bringing more meanings into play, by creating a dialogue of complexity and simplification, of distinction and analogy, that transforms your immediate world and reaches beyond it. To be sure, we are all bound to a reality that is local in a million ways—by language, location, race, gender, age, occupation, body type, religion, and so on. Just because you know a lot of abstract stuff doesn't mean you can escape that locality. After all being located somewhere is, paradoxically, one of the universal human attributes, and there is a provinciality of abstraction that is just as inane as that of detail. But in the mind of a thoughtful person, education is a habit that expands experience so as to overcome that provinciality by increasing ties between your locality and other human meanings. Sometimes abstraction is the mechanism for this, sometimes identification, sometimes grand simplification, sometimes the link goes through the tiniest of similar factual details, such as a similar eye color or a shared hometown.

Bear in mind too that this localism, this provinciality, is not only in space—geographical and social—but also in time. All of you live in a local temporality—one in which the future is your twenties and midlife is light-years away. To you I am a fixed object who doesn't live in a now, a “professor,” who was and is and always will be. But I too live a contingent life, in which things might be radically different in a very short time. To me, you are the fixed ones, who will wander probabilistically through the chances of life as I did, with just as varied results. But just as education enables overcoming impoverished localism in terms of social and cultural space, so also it means overcoming this mutual and provincial illusion of temporal fixedness so that together we can simultaneously experience the contingencies of both mid-life and youth.

As teachers, we try to entice you into this habit of education by a variety of exercises, just as a Zen monk tries to get a novice to achieve enlightenment by giving him a koan to meditate on. Note that the Zen koan is not enlightenment but rather is a means to enlightenment. So too there is, as I have said, nothing special about the exercises we teach—analytic reasoning, good writing, critical thinking, and so on. All the stuff of the core. They are exercises we give you hoping that they will somehow help you find the flash of enlightenment that is education. In that sense, the phrase “aims of education” is exactly backward. Education doesn't have aims. It is the aim of other things.

This “education,” this flash of enlightenment, is the emergence of the habit of looking for new meanings, of seeking out new connections, of investing experience with complexity or extension that makes it richer and longer, even though it remains anchored in some local bit of both social space and social time. Everything else we teach is an exercise to achieve that.

At the same time, one should not despise these exercises. Just because I have argued that the materials and skills we try to teach in class are not themselves the thing that is education does not mean one can easily find education without them. Indeed, to invoke another, more famous, metaphor, you can think of the curriculum as the shadows cast on a wall by the light of education itself as it shines over, under, around, and through the myriad phases of our experience. It is a mistake to be sure to take these shadows for the reality, but they are something that helps us find or grasp or intuit that reality. The false notions that there is a fixed curriculum, that there is a list of things that an educated person ought to know, and that the shadow-exercises on the wall themselves are the content of education—these false notions all come from taking too seriously what was originally a wise recognition—the recognition that the shadows do in fact provide a starting point in our attempt to fully envision reality.

But note that in this metaphor it is not just the shadows on the wall that are not education. Knowing reality isn't education either. Education is the light, the shining thing that assigns meanings. If you have it,

all the rest—the core skills and the lingua franca and the basic materials, all those shadows on the wall—suddenly becomes obvious. That is why so many happy alumni who found the spark of education mistake in retrospect the exercises for the reality. Once the spark is found it makes the pathway to it seem unproblematic, self-evident. For education is an invisible creativity that radiates from within. It is not something you have. It is something you are.

In summary, from a practical point of view there is no evidence that undertaking the particular intellectual exercises we set for you here at college has any exclusive connection with your worldly success or your cognitive development. Nor is there really an effective theoretical argument for aims of education going forward into the future. The reality is that education is a present quality of self, a way of being in the moment. And that quality is its own aim, because it expands our present experience and hence is worthwhile in itself.

Three important matters in closing: First a word about the future. I have in a way deceived you with my argument that education has nothing to do with the future. I have argued that education is a quality of one's self in the present. But of course we will always live "in the present," even though from where we are now, future presents look like fixed things. "I'll be a doctor" or "I'm going to write a great novel," we say—as if these future presents were simple and fixed states of being. When you get to the future—when you become the doctor or write the novel—you'll find that your future nows are just as contingent, just as uneasy, just as "present-like," as is your present today. So it turns out that cultivating education—a sense of a self that perpetually, restlessly looks for new meanings in situations and facts and ideas—is a crucial resource for the future, because the future is a series of contingent moments just like the present.

As a result it is in an odd way true that education is your best way to "plan" for the future. (Odd because "education" in that sentence does not mean what you used to think it did.) The one thing we know of the future is that although we cannot predict it, it will happen anyway. Look at the person to your right. Now look at the person to your left. In twenty years, all three of you will have married and one of you will have divorced. You don't imagine that now. Nobody in this room, I would imagine, is planning to get divorced. But over 40 percent of you eventually will. History happens.

And these personal happenings are only one type of chance. The events of a year ago will have persuaded you that there is no escaping history. But believe it or not those events will seem quite minor in fifty years—harbingers perhaps, but not by any means the great events of the next half century. After all, nearly ten times as many people died every single day for six years in World War II as died in the one day of the World Trade Center attacks. The society in which most of you will die fifty or so years hence will not look at all like this society now. Widespread, everyday biological terrorism could be a fact of life, as could comprehensive economic globalization, worldwide religious war, genetic registration, disappearance of national boundaries, rationing of procreation, implanted personal locator chips—who knows what is coming?

Now you cannot plan for these things, overwhelming as they are. But you can be prepared to comprehend them by becoming a person who can find meaning in events, a person of education. Indeed, if you are educated you will be able not simply to experience these events, but to shape their meanings for yourself and others. You will not just experience the future, but also make it. In that sense, being educated is your best plan for an uncertain future.

Second concluding remark: I have throughout this talk considered matters of cognition. I have not talked about emotional and moral education, even though both social science studies and theories of education recognize the importance of emotional and moral growth in the college years. We do know that intellectual study will be only one of three basic activities you do here. The second is paid work. The majority of you will work on and off through college and, indeed, many of you will work nearly half time by the standards of the labor force. And the third activity is that vast body of other things—sports and clubs and love affairs and cruising blues bars and eating at restaurants and so on—that we so aptly call the extracurriculum.

Now people who think about formal education have focused on cognition and have paid remarkably little attention to what we might call the moral and emotional curricula of college, which are "taught"—for the most part—in your work life and your extracurricular life. This is not because the emotional and moral curricula lack importance. Recall that in my earlier remarks about the professions I said that professional

elites often require moral and emotional skills like leadership, understanding, and organization far more than they do cognitive skills like analytic thinking and clear writing. So these are important skills indeed. But in practice our moral curriculum boils down to some brief discussions about getting along in dormitories and some politicized and often phony class discussions about race, class, gender, and so on. My friend John Mearsheimer had the guts to stand where I am standing four years ago and argue forcefully that college education is not moral education. Theoretically, Professor Mearsheimer may have been right—he argued from a strong libertarian and cognitivist viewpoint—but empirically he was dead wrong. Willy-nilly, moral learning will be central in your college experience. You will do a lot of moral learning even in the classroom, much of it learning to dissemble your real views in discussions that are more apparent than real. Sad to say, you will find this skill extremely useful in later life.

Our emotional curriculum is in an even worse state. Basically, we bring all of you here, brim full of needs and desires and hormones, let you loose on each other like so many animals in a wildlife sanctuary, and hope for the best. Why we should have arranged cognitive learning so that intergenerational transmission is highly effective but emotional learning so that every generation has to start over from the beginning is beyond me.

Now my point is that for you as individuals, your responsibility to yourselves for finding education is not limited to the cognitive matters to which the University—following Mearsheimer’s argument—largely restricts itself. You need to become educated in morals and emotion as well. And in those areas, I am sad to say, we do not really provide you with anything like the systematic set of exercises in self-development that we provide on the cognitive side. So you are on your own.

Third and finally, this talk may seem to have given you an extraordinary charter of freedom. I have said—and the studies show—that what you do here has few clearly evident consequences for your future. To many of you, this may seem like a license to do whatever you damn well please for the next four years. In a sense, you do indeed have that license. Education is here to look for, but nobody can actually force you to find it. And nobody here can deny that the world is full of very successful people, at the highest places in our society, who have college degrees from eminent places and who yet lack even the most rudimentary forms of education.

To put it simply, the system as it currently exists trusts you with the whole store. Education is the most valuable, the most human, and the most humane basis around which a person can build him- or herself. And you are here offered an unparalleled set of resources for finding the flash of enlightenment that kindles education within you. But it is in practice completely your decision whether you seek that flash. You can go through here and do nothing. Or you can go through here like a tourist, listening to lectures here and there, consulting your college Fodor’s for “important intellectual attractions” that “should not be missed during your stay.” Or you can go through here mechanically, stuffing yourself with materials and skills till you’re gorged with them. And whichever of these three you choose, you’ll do just fine in the world after you leave. You will be happy and you will be successful.

Or on the other hand you can seek education. It will not be easy. We have only helpful exercises for you. We can’t give you the thing itself. And there will be extraordinary temptations—to spend whole months wallowing in a concentration that doesn’t work for you because you have some myth about your future, to blow off intellectual effort in all but one area because you are too lazy to challenge yourself, to wander off to Europe for a year of enlightenment that rapidly turns into touristic self-indulgence. There will be the temptations of timidity, too, temptations to forgo all experimentation, to miss the glorious randomness of college, to give up the prodigal possibilities that—let me tell you—you will never find again; temptations to go rigidly through the motions and then wonder why education has eluded you.

There are no aims of education. The aim is education. If—and only if—you seek it ... education will find you.

Welcome to the University of Chicago.