

**URGENT
OR MIGHT**



Commencement Address of
Ernest L. Boyer
United States Commissioner of Education
University of Maryland
College Park, Maryland
December 18, 1978

I congratulate the graduates for choosing the right thing, for carrying your program with success - and I wish for you a life of participation & great joy.

~~I'm delighted to be with you today. When President Toll asked me to be your commencement speaker he encouraged me, unknowingly, to talk about a subject close to my heart. I hope it's also close to yours, today is so close on a personal & this distinguished institution especially on this important evening.~~

*Great
statement*

I'd like to talk about the unlimited opportunities for unusual people -- people who use to the fullest their gifts or talents or insights or commitments -- not only to excel in our society but also to make it a more knowledgeable, just, humane, and enjoyable society.

This is a time of change for most of you. Commencement means the end of formal education and the beginning of a new career, of new opportunities and responsibilities, perhaps even of a new life style as you leave home and family and start out on your own.

It's a time to make -- or renew -- some promises to yourself about what you aspire to or what you will settle for in life. In many ways, life is a trade-off. A cabin in the woods offers solitude and the simple life. But in most

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fields of endeavor the pursuit of excellence is an urban pursuit, with all the frustrations, as well the as advantages, of urban living.

Wherever you live, whatever career you choose, the most important promise you can make is the one that commits you to cherish, nurture, and expand the special talents, abilities, interests, and beliefs that make you who you are.

Too much creativity, too much talent, get lost amid the pressures of daily living. That shouldn't happen to any young person. It's not only a loss to the individual. It's a loss to society too, and that diminishes us all.

gm also played a role in the platform with these outstanding people. you
- Johnny Toll is one of the most unusual people I know.

We worked closely together ⁱⁿ when he was president of the

~~State University of New York at Stony Brook and I was chan-~~

~~cellor of the State university system. I came to know and~~

but I admired him enormously for his
admire his quality of mind, his dedication to academic

excellence, ^{for} his conviction that every student can excel.

~~These attributes have given his leadership a special~~

~~quality.~~

Astronomer Halton Arp once said: "Mavericks disturb things, rock the boat, cause trouble, and some, a majority, are dead wrong. But the ones who are right are very, very valuable."

will
Johnny is a boat rocker when he needs to be, but when things settle down you find the course corrections ^{that} he's made

~~are usually right.~~ *were painted straight in*

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~~For last word - excellence -~~
~~Johny knows that~~

Excellence is the yardstick by which education
~~must~~ ~~should~~ be measured. Every student must be
challenged intellectually

~~It~~ students are
~~instilled~~
~~or~~ ~~convinced~~
by ignorance.

It brings me to my central message.
I'm convinced the time has come for

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THE SHAPING OF AN EDUCATED HEART

Address

by

Ernest L. Boyer

United States Commissioner of Education

Delivered at Beloit College

Commencement Exercises

Beloit, Wisconsin

April 21, 1978

During a lecture at State University of New York's Downstate Medical Center in 1966, Arnold Toynbee observed *that* that we have conquered nature and now our great unfinished task is to conquer self.

- o "Man," he said, "is our most formidable enemy."
- o "The time has come," Toynbee said, "for mankind as a whole to unite against the enemy in itself."

He noted in conclusion that the greatest irony of our time is that man may be destroyed not by his madness (but by his carelessness, by his wanton disregard for ~~himself~~ and his special relationship to the planet Earth.

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Toynbee's warnings hang over us like a chilling cloud. (But in addition to the rape of physical resources of which he warned, ~~we are with increased urgency beginning to encounter~~ ^{intensity} a new crisis--the crisis of the human spirit.

For there is spread abroad, in this land of ours, a vast uneasiness one can almost feel and touch. It's like a kind of prickly ball in the pit of our stomach telling us something is not right.

And the daily news makes us alternately angry and depressed.

the American philosopher

More than fifty years ago, Josiah Royce described the conditions of his time in terms that are shockingly prophetic of our day as well. Royce said ^{that:} ~~of an earlier day that~~ we have become "more knowing, more clever, more skeptical, but seemingly we do not become more profound or more reverent."

*living I
every we meet*

~~We meet~~ This morning on a marvelous campus--a distinguished institution.

o And this brings me to the question of the relationship of our colleges to the world in which we live.

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Let me state the issue as pointedly as I can.

- o I am convinced education increasingly must confront the crisis of our time.
- o The hard fact remains that, while institutions of higher learning have continued to expand, we have still not found ways to implement our lofty claims.
- o Indeed, as Clerk Kerr observed, the sprawling campuses run the risk of facing the dinosaur's dilemma, whose body grew so large its brain could no longer coordinate its parts.

What I am suggesting is simply this. At this time of sobering reappraisal in our national life,

- o we must look again at the quality of education in our midst.
- o We must ask just how our schools and colleges relate to such old-fashioned virtues as truth--and justice--and integrity--and human decency.

quality

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- o Just how do our higher institutions, seek to instill and keep alive these conditions which our grandparents would have called the qualities of the human spirit?

and just
 Therefore, before you leave this happy island of *intellectual*

inquiry, *may* I impose upon you, as graduates, one more fifteen-minute lecture, and suggest three *ways in which all of the* obligations which I believe our Nation's colleges and ~~universities must once again assume if we are to contribute more fully than we have to the strengthening of the moral fiber in our national life.~~

II

First I suggest the time has come for us to underscore the unity of life on this spaceship Earth.

Some years ago at the opening convocation of one of City University of New York's senior institutions, William Arrowsmith declared that the modern university is "unconsciously helping to create a new and special modern chaos in which the environment as a whole is nobody's business and bears nobody's design—a conglomerate whose total disorder is exposed by the ruthless unrelatedness of the parts."

There is some truth to this charge.

- o For, with all of our academic subtleties and our countless categories of knowledge, we frequently study all questions except those that matter most.

↳ And while we are doing well the essential business of transmitting fragments of information, there is another obligation that is substantially ignored—searching out and highlighting the interlocking threads of human knowledge.

The fact is that students come to college at a time in their lives when the biggest questions press in on them, and yet rarely in the academic programs are these transcendent issues met head on.

- o And this leads, for some at least, to acute frustration ~~and disappointment.~~
- o Somerset Maugham in the "Writer's Notebook" writes poignantly of the mountaineer who struggled to reach the top of the highest peak only

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to discover that instead of seeing the sunrise he found only fog, at which point the writer suggests "he wandered down again."

o o o

It was Tolstoy who, as a young man, ~~identified the issues that seemed relentlessly to press in, and the list is relevant yet today.~~ Tolstoy troubled himself with such questions as ^{urgent & vital}

- o "Why live at all?"
- o "What is the cause of my existence and of everyone else's?"
- o "What is the meaning of the cleavage into good and evil which I feel within myself, and why does this cleavage exist?"
- o "What should be the plan of my life?"
- o "What is death; how can I transcend it?"

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Where in the college programs can such universal questions be asked? How can students develop the art of wise decision making which as Walter Lippmann says, "cuts across all specialities."

o o o

This sort of wisdom transcends the disciplines, for again in Lippman's words,

- o "it can be possessed by anyone who has an imaginative feeling for what really matters to human beings,
- o whether they travel in jet planes or walk on foot,
- o whether they are craftsmen in little workshops or hired hands in an automatic factory run by a computer."

The point is clear enough. ~~We must, I repeat, find ways which will enable us to see the wholeness in life.~~

- o The learning of our time must engender respect, not just for the physical ecology of this planet, but for the delicate balance of our social ecology as well.

- o Unity, not the fragmentation of knowledge, must be central to our search.

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III

Second, ~~we must see to it that our~~ formal learning ~~becomes~~ a truly humanizing experience, a process that stresses the dignity of life and deepens the conviction that people are important.

Handwritten notes:
...
...
...

- o This statement is so simple, it borders on the sentimental.
- o Yet in our busy world of increased emphasis on technology, of pressures and problems on every side, of almost hourly crises, one of our most difficult tasks still remains--that of dealing humanely with one another.

o o o

Surrounded, ~~sometimes~~ even mastered, by our inventions, it becomes all too easy to put people into categories.

Q. We tend to speak of "engineers," "professors," "bus drivers," the "middle-class," the "silent majority," and on and on we go.

And as we pigeonhole, we distort, losing sight of the fact that we are talking about people--

- o individuals who laugh, who love, who have unique talents and deep aspirations,
- o who grow old and lonely,
- o who have fears and doubts in the dark of night.

o o o

Even on campus we classify ourselves and colleagues, and here too we become "economists and deans and mathematicians and radicals and administrators and chancellors and students and the office staff."

We live out Eleanor Rigby--popularized in the Beatles' tune.

- o Eleanor, as you'll recall, waited at the window "wearing the mask she keeps in a jar by the door."
- o We, too, wear our masks, acting out our roles as two-dimensional people, wearing a "face" we keep in a jar by the door.

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The point is this. If we are truly concerned about our Earth home,

- o we must demonstrate that we are depending upon one another, struggling together, living and dying on a single globe,
- o and we must reach out to one another to support our common cause.

For to talk of saving our Earth while we destroy ourselves is sad mockery indeed. Make no mistake: if we dehumanize ourselves in the process, we spiritually denude our earth.

~~The sickness of our environment is, at least in part, a mirror of the sickness in ourselves--a reflection of the pervasive notion that life is cheap.~~

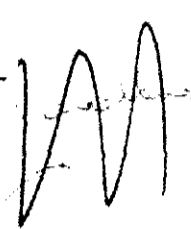
- ~~o Indeed it is here--at this very point--that our rebirth must begin.~~
- o Respect for life--all of life--must be a bedrock principle if we are to rebuild the physical and social and spiritual environment in which we live.

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This then is the objective to which liberal learning must be dedicated.

IV

I now turn to my third suggestion, one that follows logically from the last. Somehow we must begin to weave into the fabric of ^{our lives} education the capacity to make judgments, to form convictions, and to act boldly upon the values we hold.



- o It is not enough merely to see the world wholly and sensitively--
- o It is not enough simply to respect our fellow man.
- o Rather we must continue to develop and refine the capacity to achieve "what is good and what is best"--to confront seriously the problem of "values."

o o o

Whenever a discussion turns to values, a strange embarrassment seems to overtake us all.

- o Somehow we have deluded ourselves into believing that we can be responsible people without ever taking sides, without expressing firm convictions about fundamental issues.

Finally, we must commit ^{to} ourselves to Excellence (15)
to the support and are great imitator of high level

The University of Maryland has consistently graduated
~~young people who went on to make the most of exceptional~~
young people who went on to make the most of exceptional
~~talent. Let me mention just a few.~~

o Jane Cahill Pfeiffer, ~~who was~~ IBM's first woman vice
president, was recently named chairman of the board of the
National Broadcasting Company.

o Frederick O'Green ^{- a Maryland graduate -} is president of Litton Industries.

o Russell McFall is president of Western Union.

o Robert Flint Chandler ~~served with distinction as~~ ^{former}
president of the University of New Hampshire, ~~then~~ developed
high yield strains of rice ~~that have~~ dramatically improved
food reserves in much of Asia.

o ~~In public life are Maryland's Governor elect Harry~~
~~Hughes and Charles Schultze, President Carter's economic~~
adviser, ~~who~~ is not only a graduate but also a member of the
faculty.

+ In the arts, Carmen Balthrop has sung to great
acclaim at the Metropolitan Opera.

+ And Jim Henson has created Kermit the Frog and his
Muppet friends ^{has} ~~to show~~ millions of youngsters ~~and some of~~
~~us not so young as well -- that television can offer fantasy~~
~~that's~~ witty, whimsical, and just plain fun.

These are gifted people, committed people, who are
making significant contributions to society even as they
pursue their own career. I suspect they made some early

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~~promises to themselves, the kind I hope you're making to yourselves now.~~

We know that ^{have one} people like these ^{have some things} in common. They are original and creative ^{thinkers}. They

influence others and are trusted by others. They want to succeed and are willing to look ahead to goals that may be some years off. They take rebuffs and setbacks in stride

They're the people William Blake must have had in mind nearly 200 years ago, *when he wrote:*

"Improvement makes straight roads, ~~Blake wrote,~~ "but the crooked roads without improvement are roads of genius."

Men and women who are recognized for their contributions to science, literature, diplomacy, and other fields, as Nobel laureates or winners of other prestigious awards, almost always say "My work is my life."

Alfred Nobel himself put a slight variation into this theme. "My home is where my work is," he said, "and I can work everywhere."

Winners appreciate recognition, but they climb their mountain because it's there -- sometimes reaching the peak, as even they will concede, with the help of a lucky accident.

Prominent?

Arno Penzias and Robert Wilson of Bell Telephone

Laboratories are ^{this year} ~~the~~ American laureates in physics, ~~this year,~~ sharing the prize with a Soviet physicist. ^{Penzias & Wilson} ~~They~~ won for a discovery ~~in the mid-1960s~~ that was more or less accidental.

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Bell Laboratories had asked ~~them~~ to develop a radio antenna to test the signal from the newly launched Telstar communications satellite. The antenna wasn't much of a problem to build, but when they turned it toward Telstar, whatever its orbital position, they heard a persistent background noise.

At first they ~~reasoned~~ ^{assumed} the trouble had to be in the antenna. They dismantled it. There certainly was a problem there -- a pair of nesting pigeons.

But, even ~~with~~ ^{when} the pigeons ~~were~~ ^{were} evicted and suspicious antenna parts replaced, the noise continued. Then the Bell scientists heard about the theoretical work of astrophysicist P.J.E. Peebles and his group at Princeton, who reasoned that, if the universe had been created by a gigantic explosion of gaseous materials, there should still be residual radiation in the cosmos.

Penzias and Wilson instantly realized what they were hearing -- microwave transmissions caused by radiation 15 to 20 billion years ago.

~~This is certainly one of the most important scientific discoveries in many years.~~ Penzias ^{in comment on his discovery} simply says "We knew the find was really important when it was picked up by The New York Times."

As for ~~its~~ ^{This} being at least partly an accident . . .

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~~The thing is that an accident like that could happen to~~
~~a lot of people and nothing would come of it.~~ Something
~~does come of it when it happens to people of single-minded~~
~~dedication like Penzias and Wilson or, say, Sir Alexander~~
~~Fleming.~~ Some of Fleming's bacteriological cultures were
 accidentally invaded by an unknown organism. Out of that
 accident came penicillin.

point *This is called* *have come of it*
who are gifted and single minded
committed absolutely to excellence in their work.

Fleming. Some of Fleming's bacteriological cultures were
 accidentally invaded by an unknown organism. Out of that
 accident came penicillin.

Single-minded dedication in any field of inquiry can
 solve almost anything. We now live with virtually no fear
 of polio, tuberculosis, typhoid, small pox, and other
 scourges of the past because gifted and determined men and
 women worked by trial and error in laboratories around the
 world to develop safe vaccines and effective treatments.

Of course, single-mindedness could backfire. Some
 people are talented in more than one field, and it would be
 a pity if they were so single-minded as to concentrate on
 only one.

Lewis Carroll was an eminent mathematician who wrote
 children's books on the side. A hundred years later, we
 don't remember what he did for mathematics. But, depending
 on what we read into it, "Alice's Adventures in Wonderland"

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is one of the most delightful fantasies or one of the greatest social satires ever written. Suppose Carroll had elbowed writing aside and stayed single-mindedly with mathematics?

Paul Gauguin was a successful banker until he gave up finance to concentrate on art. With Van Gogh, Cezanne, and one or two others, he went on to become a founding father of modern art. ~~And that~~ Being single-minded & committed does not mean that you are talkative with him or committed.

In our own time, Rachel Carson spent her entire working life as an oceanographer in the U.S. Department of the Interior. In her leisure time she wrote several beautifully evocative books about the sea. She also produced a slim volume called "Silent Spring," a telling indictment of DDT as a killer of birds and other wildlife.

Rachel Carson

"As crude a weapon as the cave man's club," ~~she~~ wrote, "the chemical barrage has been hurled against the fabric of life."

With this book Miss Carson virtually alone aroused national indignation, and the pesticide was permanently banned.

This big, complex, seemingly impersonal society of ours does respond to a single voice raised in alarm when the environment is damaged. ~~it will-directed~~

Society does respond to a single creative talent that can make us laugh or cry ~~or recognize a social injustice and take steps to end it.~~

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Society does respond to individuals who increase our knowledge base or improve our health or ~~make the democratic process democratic for everyone.~~

I believe our schools?

More than any previous generation, you have the opportunity to excel. You have the education and you have the

Today free students also are in every point of economic local or opportunity to gain the support offered by government, private foundations, and corporations in many lines of endeavor.

On a national average, 19 out of every 20 gifted students go on to college. ~~schools are not identifying~~

Moreover, the racial barriers and sexual barriers that may have stopped gifted young people in your parents' generation are all but gone. The doors are open to any young person who has the ability, education, and will to succeed.

Let me suggest a few mountains that need climbing in your lifetime.

In science and technology we need solutions to energy problems that are grave indeed. We need geologists and engineers who can locate and develop new deposits of fossil fuels. We need transportation and marketing specialists who can deliver these fuels quickly and efficiently to world markets. We need the theoretical and practical know-how to advance solar energy and geothermal energy well beyond their present experimental stage.

In science and technology we also need hydrologists who can show us how to use our limited water supplies to best

1200 from 1 chance in 200 in the 50 identified only 34 higher ed isolation in the U.S. 78% degree programs for students who want to teach the gifted student.

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advantage. We need agronomists and soil conservationists who can increase food production for ^{on under} malnourished parts of the world. We need seismologists who can improve techniques for predicting earthquakes and other natural disasters that imperil life and property.

We need cosmologists -- and I think clergymen -- to explain why an ^{insignificant} small planet in an insignificant solar system ^{carries human} appears to have the only intelligent ^{through space} life in the universe.

And we need another Albert Einstein to stimulate another quantum leap into the unknown.

In diplomacy we need political scientists, linguists, humanists, economists, and historians to reconcile the conflicting needs and aspirations that separate nations. ^{we} need men and women whose contributions to international understanding are worthy of the Nobel Peace Prize. We need another Ralph Bunche or Martin Luther King, Jr., or a woman of equal stature. Five women have already won this supreme accolade, the first as early as 1905.

In health and social services we need biochemists and other specialists who can narrow the search for the causes and cures of diseases that shorten productive lives. We need social workers and physical therapists to serve the ill and aging. We need urban planners and architects and business executives to restore the vitality of our inner cities.

We need an Albert Schweitzer to rally the world to the plight of the poor, the sick, the dispossessed.

"You don't live in a world all alone," Dr. Schweitzer said. "Your brothers are here too."

~~In the arts and humanities we need painters, musicians, dancers, and writers who speak for your generation, who can express the ideals you believe in and raise to national conscience the issues that disturb you.~~ We need a Woody Guthrie, a Marian Anderson, a James Agee, a Langston Hughes.

~~In education we need teachers and administrators to prepare the next generation of young people not to follow in your footsteps, but to go beyond. More than in any other field I've mentioned, we need creative people in education. For education shapes the innate abilities we bring to it and is largely responsible for what we all become.~~

British astronomer Sir Arthur Stanley Eddington talked about the infinite capacity of the human mind to look beyond truths that appear to be fundamental, inviolate. He asked young scientists to question the unquestionable because that's the way breakthroughs in scientific knowledge occur.

For thousands of years man believed the sun revolved around the earth, that only birds could fly, that disease was inflicted by evil spirits. Man was dead wrong on all

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those counts. But it took people who doubted, who sought better answers, ~~based on observation and experimentation~~, to ~~prove him wrong~~ *And the truth.*

Sir Arthur wrote:

We have found a strange footprint on the shores of the unknown. We have devised profound theories, one after another, to account for its origin. At last we have succeeded in reconstructing the creature that made the footprint. And lo! it is our own.

I hope each of you will leave a footprint on the shores of the unknown. I wish you good luck, Godspeed, and safe passage.

###

to find still more of these things.

~~And that we must persist.~~
And we must persist. Continued excellence in scientific research & in Education the gifted student in an individual

[Insert quote of Lewis of Lewis of a cell. That ends "we are dumb"

I think I used it in my Orlando International speech

How can we reduce the poisons in the atmosphere?

Can we have a proper balance between population and the life-support system of this planet? How can we live together, with civility, in a climate of constraint?

These are a few of the "transcendent issues" that today's young people must begin to think about with great care.

One final word.

Dr. Lewis Thomas -- author of Lives of a Cell, and a trustee of the Memorial Sloan-Kettering Cancer Center -- said recently at a meeting of the American Association for the Advancement of Science that these are not the best times for the human mind.

All sorts of things seem to be turning out wrong, and the century seems to be slipping through our fingers here at the end, with almost all promises unfilled.

I cannot begin to guess at all the causes of our cultural sadness, not even the most important ones, but I can think of one thing that is wrong with us and eats away at us: We do not know enough about ourselves.

We are ignorant about how we work, about where we fit in, and most of all about the enormous,

imponderable system of life in which we are embedded as working parts....it is a new experience for all of us. It's unfamiliar ground.

Just think, two centuries ago we could explain "everything about everything," out of pure reason, and now most of that elaborate and harmonious structure has come apart before our eyes.

We are dumb.

Dr. Thomas's appeal is an eloquent one. It is a plea for more perspective, and it begins by searching for more knowledge about ourselves -- where we come from, how we work, where we fit in, and where we want to go.

In 1931 Albert Einstein spoke to the students at Cal Tech. In that memorable address he said that

It is not enough that you should understand about applied science in order that your work may increase man's blessings. Concern for man himself and his fate must always form the chief interest of all technical endeavors; concern for the great unsolved problems of the organization of labor and the distribution