

SOCIETY, SCIENCE, AND EDUCATION

I have had other occasions to address Honors Convocations and it is always most satisfying and stimulating to associate with young men and women who have demonstrated ability for scholarly accomplishment and have markedly achieved in various fields of endeavor. I express to each of you my congratulations and good wishes for your continued success. I particularly admire your achievements in this day when strong forces of anti-intellectualism are at play. It is probable that no student who ^{makes} achieves an outstanding scholastic record escapes entirely from a certain amount of approbation or name calling such as intellectual, egghead, average-raiser and other connotations that are used by people that are apathetic or jealous of scholarly attainments and the pursuit of excellence. You have indicated that this unfortunate philosophy has not disturbed you and that you know that your study and efforts have been well worthwhile. Fortunately there is strong evidence that public opinion is now beginning to respect the intellectual, the scholar, and the teacher. If the sputniks have been responsible for this attitude of increasing respect for the accomplishments of the mind, perhaps they have rendered us a great service.

Men have always been ~~inherently~~ endowed with a wide range of physical and mental talents. Different ages and different cultures have placed different values and emphasis upon these attributes. In fact, the evolution of societies has been influenced by the degree of emphasis placed upon the talents of their peoples in relation to the times. The Spartans held the warrior in great esteem; and at times the mystic, the philosopher, the medicine man, the athlete, the poet, the artist, and the craftsman have

held the stage. In a frontier society such as that of America 100 years ago, physical prowess, determination, and bravery were criteria for acclaim and leadership. Today the frontier is intellectual; the scholar, the researcher, the scientist, the engineer, the humanist, the teacher, are the pioneers. The quest for new knowledge and the battle for men's minds are the bases for the dynamics of our culture and society.

As you have probably already realized, the terms in the title of my address are somewhat redundant, in that science and education are a part of our society. The impact of science and education upon our society and culture in the past few decades has assumed tremendous importance, and it is quite evident that they will continue to influence society in ever increasing proportions. We do not have much time to ponder at the crossroads, for the crossroad was yesterday's symbol. Today we approach the freeway interchange at 70 to 80 miles per hour, and we must determine several miles in advance how to get into the right lane. We need clear and fast-thinking leaders who do not get into the wrong lane or stay in it too long to make the correct turn and the right decisions. It means our freedom, and perhaps even our survival.

Arthur C. Cox - 1840

As we go back to the beginnings of man's cultural patterns, they were closely related and adjusted to his environment. Early man was primarily concerned with his basic needs; food, clothing, and shelter, all of which he derived more or less directly from his environment in unaltered form. His early culture, hence, was developed about the problems of obtaining these necessities, and his religion, customs, beliefs, and social habits were

expressions of his appreciation of their abundance. The other basis for his cultural patterns was his relations with his fellow men, and this is the beginning of society, that is, man's social, political, and economic inter-relations. As a student of ecology, the science of the mutual relationships of living things and their environment, I cannot help but to point out that man is a part of the environment the same as any other living organism, and that he is profoundly effected by the environment and likewise exerts a drastic effect upon it. Man's urgent and immediate relationship to his environment is his use, need, and transformation of energy, and it is his insatiable demands for energy and the way he has used it that have had such a profound influence upon the evolution of his culture and society. The earth upon which he lives is at least 3000 times older than his species. When he arrived on the scene, the inhabitants, both plants and animals, were in fairly good adjustment with each other and their physical environment, and in the efficient use and reuse of energy. Previous to the advent of man, energy had been stored at a much faster pace than it had been used. Early man had no way of releasing energy except through fire and his own biological processes, and the paucity of early man prohibited him from making any inroad on the stored energy. In fact he had little control over his environment and the forces of nature.

Some 10,000 years ago, however, man learned the principles of domesticating food plants and certain animals that were to provide him with food. This gave him more leisure and enabled him to establish a sedentary life. Primitive agricultural communities grew into small centers of population and cultures

and societies began to develop. Trade and manufacturing flourished, more complex societies formed, nations were created, and man utilized energy at an ever increasing pace. The power of nations has been and is dependent upon the availability of energy and their ingenuity in devising ways to transform it into usable forms and machines to utilize it. Man's ability to transform, harness, and concentrate great masses of energy has had a tremendous impact upon society and the final results could be catastrophic. The discovery of how to release through thermal nuclear fusion many megatons of explosive power and to produce sufficient concentrated energy to send a warhead containing this potential power at supersonic speeds for thousands of miles has a profound effect upon our political, social, and economic life. Because the rulers of Russia have vowed that they will relentlessly carry on until they have imposed their ideology on the rest of the world, we must spend billions in order to develop and maintain the means of thwarting this ambition. But dollars alone will not give the needed protection. Science and technology must find the means and society must adjust itself to this tremendous undertaking. Our educational programs and patterns are and will be playing no small part in this social metamorphosis. Not only is there an ever increasing demand for energy to carry on our industry and mechanical needs of everyday life, the unprecedented expansion of population calls for more energy in the way of food. In order for a peaceful society of nations to exist, these energy demands must be met. Fortunately, controlled nuclear fission is already contributing to this demand and is a vital factor in the economic planning of the nations of the world. It may not be

too long before controlled nuclear fusion energy is realized, and we shall enter upon an age of unlimited energy. If ~~un-~~limited reason and delimited passions can be harnessed to unlimited energy, a new era for mankind will dawn. This then, is one of great and urgent problems today, to avoid the evils and reap the benefits of this great force. The scientists and engineers will undoubtedly solve the physics and mechanics of the problem, but it is up to the humanists and sociologists to interpret and apply it to the masses, so that it may be utilized to the best advantage in improving the lot of mankind. Our hopes rest in you to work continuously toward this end.

As mentioned previously, early societies were simple because few people were involved and they were tied directly to their physical environment largely through sensory perception. The evolution of man, however, had provided him with a memory and the ability to think. Society gradually became more complex as humanistic concepts entered into the picture. The arts, languages, religion, philosophy, economics, were the bases for cultures. I do not mean to imply that there was no scientific thought or use of scientific principles, but their influence on human culture was negligible. It is said that in the 15th century, no more was known about science than at the time of Aristotle, who lived in the 4th century B.C. In fact his doctrines were the bases for much of the medieval philosophy ^{which was} also known as scholasticism. It was not until 300 years ago that modern science had its origin and began to have a noticeable influence upon society. As long as scientific knowledge was discovered for the sake of knowledge, or as pure science, it had little impact on the everyday life

of man. When he began to utilize this knowledge to make living better and easier, a whole new set of components entered his culture, and he became more and more dependent upon science and technology. In turn, science has been instrumental in creating many of the problems of society, two of which I am concerned with here, namely the misdirected use of energy and the population explosion.

The scientist, however, is a part of society, and he is continually trying to erase the menace of the by-products of technology based upon his scientific knowledge. With respect to growing populations, we know that the micro-organisms in a wine vat multiply only to a point where their metabolic wastes, alcohol and carbon dioxide, reach a certain level, which are poisonous to them. The metabolic wastes of civilization will become equally detrimental to mankind unless ways and means are devised to eliminate or neutralize these wastes. I am thinking of the strontium fallout from atomic explosions which may contaminate our food and be deleterious when accumulation reaches certain levels. I refer to the smog of industrial areas that has created intense hazards and will prohibit further expansion of cities unless the problem is solved. I am thinking of the pollution of lakes and streams so that the water is unfit for human use in its many aspects.

Both individual species and mixed populations of organisms follow the "S" curve of growth. They grow slowly at first and if conditions are favorable, they rapidly expand in numbers, slow down when food becomes scarce, or metabolic wastes increase beyond the tolerance point. If a balance is reached static population may be maintained; if not, the population may decline and die out

entirely. The human population curve is apparently in a steep upward trend and may continue that way for some time, largely because of preventative medicine and better living conditions. This population explosion has engaged the attention of the social, ethical, and scientific aspects of birth control. The next generation will inherit from us a surplus of elderly people. This situation creates problems which have already given rise to a new subject called gerontology. The problems of gerontology are not only scientific; they involve the basic social unit, the family --- family affections, group loyalty, and social justice. So far as our overall culture and society are concerned, the political, social, and political potentials are so vast that we can not foresee the implications. It is apparent that our society has changed as much in the past decade as it has in a century of the past.

It would seem then, that society is literally in the grip of science. The future of America is in the hands of the researcher and the interpreter. There is a plentiful supply of researchers but there may be a shortage of interpreters who can act as mediators between the specialist and the layman. The advancement of civilization depends upon the efficiency with which the thought of the thinkers can be translated into the language of the masses. Much has been said and written during the past few years about the growing hiatus between science and the humanities. C. P. Snow, a British scientist and novelist speaks of it as a cultural dichotomy. He states "I became occupied with the problem of what I shall call the two cultures. For constantly I felt that I was moving among two groups --- comparable in intelligence, not grossly different in social origin

earning about the same incomes -- who had almost ceased to communicate at all, who in intellectual, moral, and psychological climate had so little in common that they might have inhabited different worlds... I believe the intellectual life of the whole of Western society is increasingly being split in two polar groups. ... Literary intellectuals are at one pole --- at the other, scientists; and, as most representative, the physical scientists. Between the two lies a gulf of mutual incomprehension. The two groups have, moreover, a curious distorted image of each other. Their attitudes are so different that even at the level of emotion they find little common ground".

Sarton, the eminent historian has pointed out, "The ominous conflict of our time is the difference of opinion, of outlook, between men of letters historians, philosophers, the so-called humanists, on the one side, and the scientists on the other". Similarly Mees has stated, "While the relation between the progress of scientific discovery and the structure of society is of the utmost interest and importance to those who desire to understand it, or, still more, to control the changes that are occurring, there is cleavage between those who follow the discipline of history and of the humanities and those who are eagerly the quest for scientific knowledge. Humanistic learning is the learning of the ancients, it is a study of the accumulated thought of mankind so far as it has been transmitted to us. Scientific knowledge, on the other hand, is a development arising from the observation of facts and their classification into patterns. The separation of these two types of learning has always been unfortunate; at present it is serious, and it may,

indeed, be disastrous". Many others have deplored increased emphasis and specialization in science at the expense of the humanities and social sciences.

It is inevitable that with the ever expanding frontiers of knowledge in all fields, that there is greater specialization. The history and development of man have been concerned with his progress in the conquest of nature, and less successfully, and unfortunately, his effort to understand himself and his relation and adjustment to his fellow men. The story of the development of society itself is an ever increasing understanding ~~understanding~~ and conquest of nature and the utilization of its forces. While the use of these forces has not always been used wisely, I believe that ~~for~~ the larger proportion of scientific knowledge has been applied for the good and advancement of civilization.

It is true that there has been increased emphasis on science, but the de-emphasis in the humanities and the social sciences has been more relative than real. During World War II, all of our efforts were directed toward survival and preservation of our democratic way of life. In the process of winning the war, we had to call upon science and technology, and with the vast amount of manpower and other resources poured into this effort, other phases of our society were ignored or placed in the background. The momentum created by this effort continued after the war, and with the great advance of Russia in science and technology, we have been forced to maintain, and even increase, our pace in order to contain the threat of encroachment upon our freedom and way of life. In our concentration on science, society has fallen behind in its efforts to understand and adjust itself to this

rapid change. The world today is groping with the practical, the moral and the philosophical implications of this reality. There is a great restlessness surging through the under-developed races and peoples of the world, which creates an entirely new relationship between them and the so-called developed countries, between the white and the colored, between the advanced and the primitive. Today, then, we face scientific, political, and social challenges - each of great proportions, and all fused in a shrunken world. Just after the first satellite went up, President Eisenhower, in the midst of all his problems, said that he would gladly trade a dozen of the finest engineers and scientists, for just one thoroughly moral philosopher. So it is imperative, that the man of science or the technologist, has an appreciation of the global character of his work. He should have a sense of collaboration and relationship with other people, not only in his own community, his own nation, but ^{with} people of other nations, other races, other creeds, other ideologies -- and appreciation of their needs, aspirations, and sensitivities.

The danger is that we tend to look at life not as through a window, but through a mirror. We are likely to see only the image of ourselves rather than the clear and undistorted truths that lie just beyond. Mirror-thinking is giving us too much of our own and not enough of the other fellow's viewpoint. It is in you and those like you that there reposes the solemn obligation to undertake, even if you never achieve it, the final synthesis of knowledge and social action on a world-wide basis.

Specialization has been increased in practically all fields, and while specialization increases scholarship, it also creates a sort of intellectual myopia. Our graduate schools are full of students, and professors, too, who are almost illiterate in every area but one, and who are unaware that, for this reason, they cannot really understand even their own specialities. Yet, it is society itself which has chosen a kind of civilization which is so overwhelmingly dependent upon advances in science and technology. The scientist's work as a scientist is completed when new knowledge is discovered and recorded. It is of no concern to the scientist, as a scientist, whether the knowledge is useful or not. Thus, it is not the scientist who creates technology. It is society itself which chooses to make use of the scientific knowledge, for good or bad, depending upon the urgency of the occasion. We must not for a moment, minimize the need for continual search for new knowledge, because as Robert Oppenheimer says "new knowledge is useful, and ~~that~~ the getting of it is ennobling".

I would say, however, that if the arts, the social sciences, and the humanities were ever in danger of being de-emphasized, the critical period has passed. More and more the leaders of society and government realize that the role of leadership in tomorrow's world will be assumed by ~~neither~~ those ^{who} ~~that~~ know a great deal about a very little, or a very little about a great deal. It will be discharged only by those whose thinking is ^o broad and uninhibited, those with grasp and understanding, --- leaders, in short, whose horizons are broad enough to comprehend the world in which we live.

I have dwelt for sometime, perhaps too long, on the so-called

two cultures and the dichotomy of the natural sciences and the social sciences. While I do not think that the problem is as great as some would have us believe, something might be done to alleviate this apprehension and misunderstanding on the part of society. It is true, that undergraduate science majors are required to take certain courses in liberal arts, but these are largely subject matter courses and are not orientated toward the relationship that the scientist might have with society. Perhaps courses might be devised for scientists that would stress the interrelations of science and society, while courses in scientific humanities might serve to enlighten the humanities major with respect to the tremendous role that science plays in our everyday life. These might include history of science, its philosophy, science in government, scientific concepts and human activities, and all the rest that goes into talking about science rather than doing it. In fact, it may eventually become necessary, and soon, for an entire curricula to be focused about the development, training, and preparation of students in a discipline involving interpretation and evaluation of science in our social, economic, and political life.

In the short time I have left, I would like to ^{touch} briefly ~~touch~~ on some of the more significant aspects of the educational picture. With the tremendous expansion of education and ever increasing concern and emphasis on it during the ~~the~~ twentieth century, and particularly ^{the} the past two decades, we might aptly call it the Age of Education. In spite of the competition offered by missiles, satellites, space travel, and nuclear physics, I believe that historians will cite the middle of this century as a time when education was one of the most important phases of our society and

of profound influence on our culture. In our efforts to meet the multiple and rapidly changing aims and objectives through continual modification of our educational patterns, it may seem that we are in a constant state of chaos. We should not, however, confuse chaos with ferment. The latter is inevitable, yes, absolutely essential, if our educational system is to maintain pace with the needs of a rapidly changing society which I have just mentioned. From time to time, unexpected and startling events take place in the world, which cause us to re-evaluate and re-examine our educational patterns. Such an event was the launching of the first sputnik by the Russians. This and other events, indicating that other nations, are rapidly overtaking us in some fields and surpassing us in others, have upset our complacency and caused us to re-examine our educational program. It is unfortunate that this ferment in our education was brought about by the threat of destruction of our way of life, rather than by the peaceful needs of society and the desire for betterment of the human race. Regardless of the source of motivation, education today is front-page news. It is being talked about, debated, discussed, argued, televised, and even advertised in such quantity and with such emphasis that it is inevitable that there will be significant reforms in a positive direction.

The following statement from "Education for the Age of Science", drawn up by the President's Science Advisory Committee introduces ~~the~~ quite cogently the basis for our educational pattern. "The educational needs and problems of each nation have their own peculiar flavor. No nation can copy another. The American problem is conditioned by our traditional dedication to the

proposition that most our children shall have a long educational experience, that no child shall be deprived of the fullest opportunity to develop his own talents, and that the people of each local community shall, to a large degree, be autonomous in the decisions they make about the education for their own children. In theory we intend that the brilliant child shall be able to develop brilliantly; that the slow or backward child shall be nurtured patiently; that the artisan shall not be considered inferior to the intellectual because he is an artisan, if only he is a good one; that no one shall be condemned to a lowly position or elevated to a high one by the mere circumstance of the wealth, power or prestige of his ancestors.

These are our premises and most of our educational policies are based upon them, yet there are inconsistencies. Very few Americans, for example, would insist that the words of the Declaration of Independence require that all Americans be equally competent in intellectual matters and that they should, therefore, automatically pass together from grade to grade in school. Yet occasionally this seems to be our policy. Americans do not really think that educated people are dangerous or silly -- yet the terms "egghead" and "intellectual" are not always terms of acclaim. We occasionally act as though we feared the word "excellent", especially as applied to mental achievement; as though we felt that there was something strange about the straight "A" student. In short, we cannot always assume that our practices live up to our ideals. Hence, it is profitable every now and again to examine our educational system and to note where it fails to match the highest ideals we have".

If we are to follow in general, at least, along these premises, then it can be readily recognized that one of the most pressing problems is to provide the facilities to educate the ever increasing numbers of children. The next question is how much and how long should we educate them, and what is to be our principle philosophy and goals in providing education for the masses. The fact that America and Russia are locked in a battle for world domination must also be considered as one of the prime factors in guiding and molding our educational patterns. The fundamental basis for our differences are vividly expressed in the philosophy of the reciprocal responsibilities of the individual and society. Does the individual exist for the state or the state for the individual? Education behind the Iron Curtain has two functions; the indoctrination of youth in Communist principles and the development of each individual's capacities for specialization in the service of the state. As we all know, there is already an increasing pressure to use education as a means of building our national strength by developing our manpower resources. How far can we go with this philosophy without strong controversy with the concept of providing a means of economic and social advancement in a fluid society or as primarily developing normal, healthy, well-adjusted people. Are these two objectives consistent with the traditional relationship of the individual and society? Will parents be content to have their children educated as manpower resources? The answers to these questions and the adjustment of our educational patterns to these philosophies may determine our course of action for some time to come. Thus the future of American education is beset by the paradox of our cherished tradition of education for the masses, with pampering and patience for the less intellectually endowed on the one hand and the recognized need for the utmost

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development of our superior students to take their place as leaders in all phases of our society. The question is; how can education be made ~~most effectively~~ ^{most effectively} to serve the purposes of life in a democracy. This can be done by introducing the individual to so many and to such rich experiences so that he may achieve the most useful life that, for him, with his peculiar, individual attributes - physical, intellectual, emotional, and creative, may be possible. This is the primary purpose in so far as fitting him to play an intelligent and useful role in our society and to make intelligent decisions and contributions to our democratic way of life. We all recognize, that men are not equal, so that our educational system should provide for every individual the maximum that he can assimilate. Until quite recently, the educational philosophy and practice have revolved around the "norm", the "average", and unfortunately the mediocre. Much of what we do in the schools is predicted upon the I. Q. of 100. Those with higher I. Q.'s often have not been afforded the opportunity nor have they been encouraged to use their capacities to the maximum. We have been too much concerned with social adjustment and group dynamics rather than with learning for its own sake. A timely report of the Ford Foundation states; "One of the major weaknesses of the American Educational System is a lack of sufficient flexibility to accomodate the wide differences in ability, interests, and maturity that prevail among young people of similar age. At the risk of over simplification it can be said that our schools and colleges are operated on the principle of the chronological 'lock-step'. Boys and girls generally enter the first grade at the age of six, ready or not, and they are marched through the grades in step with their

chronological peers. Individual students are not allowed to proceed at their own best pace. All must stay in step through twelve years of elementary and secondary education, regardless of ability. Those who go on to college are expected to remain there for four years before obtaining a bachelor's degree. The emphasis is on time served rather on educational accomplishments". In the last few years, however, there has been an awakening to the need for breaking the chronological lock step of educational progress. Steps are being taken to increase the value put on education by society. Public schools are devising ways and means to make it socially reputable for students to engage in intellectual pursuits. Much is being done to bridge the gap between high schools and colleges with more communication, cooperation, and coordination to serve better the educational needs of the college-bound student and particularly those with the greatest potential. A high proportion of the talented high school graduates do not go to college. It has been shown that lack of finances has not been the principal reason, but rather lack of adequate and stimulating motivation has been ~~more~~ responsible ^{far} in developing apathetic attitudes toward the value and need for a college education.

Thus, it is evident, that one of the big problems is to find and identify the talented and gifted student and motivate him to take advantage of his inherent capabilities and use them to the maximum in the pursuit of intellectual excellence. It is only in recent years that the intellectual capacities of our nation have been challenged; but they are being challenged today, as never before. We must develop our intellectual resources to the utmost in order to meet this challenge. We need high quality leadership

and a wide variety of human talents in all phases of our society and culture. In order to attain this end, intellectual excellence must be fostered, rewarded, and applauded. We must also keep in mind that our society must also have millions of well-educated citizens who can comprehend what the specialists and the leaders are proposing, and have a chance to judge these proposals wisely.

Much is being done to find the talented and superior students although we still have far to go. Honors programs, independent study, advanced placement, enrichment programs, acceleration, improvement of curricula, new courses and instructional materials are a few of the more recent attempts to take full advantage of and to motivate the superior student in using the maximum potential of his intellectual ability. A much closer liason between the grade school and high school and high school and college is important in order to coordinate a program for these superior students so that time is not wasted in the transition from one level to the next.

Although the student is the central and critical emphasis in the utilization and development of our intellectual resources, the teacher plays an equal role in making the learning process more efficient at every level. We must improve our methods of learning and teaching. Good teachers are in short supply in all fields and all levels and will continue to be so for a long time to come. Obviously the first effort should be to encourage more qualified persons to enter the teaching profession ^{in order} to improve the personnel resources of education. Recruitment and training of able administrators are also necessary if the maximum potential of the teachers is to be utilized. While there is no single best way to prepare teachers, they should have a strong liberal education,

in order to (?)

a mastery of their special subject matter field, a knowledge of the basic principles of education, and an initial proficiency in the art of teaching. After the superior teacher has been trained, ways of using him more effectively must be found. The shortage is magnified when first class teachers are expected to do janitorial, clerical, and administrative chores which take time and energy from their professional duties. It has been shown that the use of lay persons as teacher aides in performing clerical and a wide variety of non-professional and semi-professional services enables the teacher to devote more time doing a good job of teaching. Much has been said and written concerning the recruitment of good teachers, but to gain this end, teachers must have a reasonable work load, a reasonable salary, scholarly facilities and opportunities, good and interested students, a favorable community attitude toward intellectual achievement, time to keep up in their subject matter, and more efficient and up-to-date teaching and learning aids of all kinds. I do not have time to even mention the many ways and means that are being considered, experimented with, and implemented to provide better education for all our students and to prepare better teachers. Many agencies such as the Ford Foundation, the National Science Foundation, and the U. S. Office of Education are spending vast sums on projects designed to study these problems and to carry out actual programs for the improvement of teachers. Much progress has been made in determining and improving the mechanics of education.

Improvement of our educational philosophies and programs has been seriously curtailed and slowed down, however, by a large

number of shibboleths that have become traditional and sacrosanct in our educational history. While individual and social goals have changed radically during man's history, education itself which is a major medium to bring about effective change, has often been resistant to new developments. It is true that more and more funds will be necessary because of the sheer force of numbers. More money for the future development of our education, however, may not be nearly as important as imaginative, creative, and bold efforts to devise more efficient, effective, and economical ways of conducting our schools at all levels. I trust that you as future teachers and citizens will be bold and aggressive in overcoming our traditional shibboleths of education, and with your proven intellectual ability and scholarly achievements do all you can to bring about these needed changes.

As our culture and society become more complex, and difficult and seemingly unsolvable problems in our social, economic, and political life become ever greater, there is a tendency for us to throw up our hands, shrug our shoulders and pass the buck so as to speak. This shirking of responsibility seems an easy way out; but it is also an "escape from freedom". It encourages beauracracy and permits the demagogue to take over. This has occurred time and again down through history. People fight for freedom. When it is attained it is enhanced and fostered and jealously guarded. But soon the responsibilities and burdens of being free begin to weigh heavily upon the people. They find out that what they really wanted was not freedom, but security, comfort, fringe benefits, an annual pay increase, and a nice retirement income. This retreat from freedom has appeared and reappeared

among the highly cultured and educated peoples as well as the backward and poorly educated people in the world. In the past three decades we have seen highly developed western societies give up their freedom for dictatorships. The same is going on today in many parts of the world. It is up to you as potential leaders in the near future not to shirk responsibility in making decisions. Do not conform to group decisions merely to avoid personal decisions. Do not use conformity as a means to lose identity. Too much compromise may finally mean a loss of integrity, produce complacency, self satisfaction, and even smugness. In many phases of our society there seems to be an eager acceptance of the philosophy of socialism. Problems which our fore fathers decided for themselves are, in many instances, now the responsibility of some governmental agency. This is not bad in all instances, but have the changes been made on the basis of intelligent and independent deliberation? Is there a growing trend for our citizens to avoid responsibility? Are we as a nation, reaching the point where we are willing to sell our democratic souls for security? We are depending upon you, who have demonstrated your desire and ability to rise above intellectual conformity and mediocrity. The world has ^{need} ~~been~~ of you as it has always ~~need~~ its youth. It draws refreshment of spirit, renewal of power, and rekindling of purpose from those who have not yet surrendered to nor compromised with life. Think more in terms of quality and less in ideas of quantity. We know perfectly well how to destroy civilization, but what we need today are men and women who have the knowledge and will to save it. I give you my sincere best wishes in this assignment.

In closing, may I emphasize that the highest aim of all education should be the development of the power and the habit of independent thought. I would like to quote from Ralph Waldo Emerson the following, which I believe is very pertinent to you who have received honors for scholastic and intellectual accomplishments:

To believe your own thought, to believe that what is true for you... is true for all men... that is genius. Speak your latent conviction, and it shall be the universal sense. A man should learn to detect and watch that gleam of light which flashes across his mind from within. Yet he dismisses without notice his thoughts, because they are his. In every work of genius we recognize our own discarded thoughts; they come back to us with a certain alienated majesty. Great work of art... teach us to abide by our spontaneous impression... then most when the whole cry of voices is on the other side. Else tomorrow a stranger will say with masterly good sense precisely what we have thought and felt all the time, and we shall be forced to take with shame our own opinions from another.

Good luck and God bless you.