

There was a point in the second world war when, after more than three years of being desperately hard pressed to hold any kind of an effective ring around the axis powers, the allies scored almost concurrent major victories in the Pacific, in North Africa, and around Stalingrad. There was much allied rejoicing at this turn of the tide. About it, Mr. Churchill had a comment: "It is not the end," he said, "or even the beginning of the end, but perhaps it may be the end of the beginning."

The same observation may be made in a much happier context about academic commencement exercises: They constitute, in a sense, the end of a beginning. I would suggest that this end of the beginning has a special touch of history upon it, in that it occurs in the Year of Sputnik, which ushers in a new era.

Normal life expectancy for you who are graduating today will afford you another fifty years or so of life. In the fifty years that have preceded this Year of Sputnik, man has witnessed and experienced scientific and technological advances that would have been regarded as almost impossibly revolutionary fifty years ago, and, as we all know, the pace at which these advances have been made has accelerated with each passing decade. Extrapolation of this accelerating pace would suggest that we are in for many more scientific advances which today would seem to be altogether extraordinary. For as the past has shown, so will the future, that marvellous works are wrought by man when he applies his uniquely human gift of reason to discovering and applying the laws of nature.

It is always easy to point the contrast between man's conspicuous, even spectacular, success in taking the measure of the world about him, and his uncertain success in taking his own measure. As I say, it is easy to point this contrast. But if success in the latter enterprise is to match that in the former, the contrast must be incessantly and insistently pointed. Society is of itself not a conveniently contained laboratory where controlled experiments may be conducted. Perhaps that is one persistent reason why social change occurs more slowly than scientific change. Yet, over the years, men and women have found the spirit and the means of reducing superstition, intolerance, bigotry, and the exploitation of man by man. Along the way, they have suffered reverses, many and cruel reverses, but they have progressed; and they have done this steadfastly even though they could have no full assurance at any point along the way that they had attained even the end of the beginning.

It is also easy, and indeed rather common historical practice, for the so-called older generations to regard the so-called younger generations as being a little over zealous for change. This attitude of the older to the younger is not always easy for the younger to accept, at least without indignation. The elders may argue that it isn't the youthful zeal that they mind, nor is it the prospect of change,--through much of which they have already survived,--even while being opposed to a good bit of it; what the elders are inclined to object to is the assumption that the changes which the younger generation suggests will be for the better, because, they argue, youth has not yet acquired the knowledge or experience with which to evaluate the changes proposed. And if there is anything in this world that can be guaranteed to act on youth as a red flag to the bull, it is this greybearded challenging of their assumptions. And I can assure you, ladies and gentlemen, that, after the year through which we have just passed at Stanford, I know whereof I speak in this particular.

What is all this likely to add up to for those who have today reached this end of a beginning in the Year of Sputnik? Certainly we want no damper of zeal; indeed, we need more of it. And if youth has it in such great abundance that they can infect their elders with it, then both generations are fortunate indeed. Certainly there is to be more change; it may come more quickly in material achievement than it will come in the social and spiritual ordering of our lives, but it will come; and if I, at

least, did not feel and know this, the faith that is within me would die, as it would in you. And if change is to come, then so will the assumptions and the hypotheses from which it stems. But just as youth, with its altogether appropriate and exciting zeal, by instinct and by training challenges the assumptions of the elders, so must youth expect to have its own assumptions challenged and tested. And in all of this there is no useful place for self-appeasing personal indignation.

None of us here expects to have reason to be disappointed in any of you. You have had the opportunity of a good education; most of you have openly seized the opportunity; some of you have seized it in a rather clandestine way, lest you be suspected of contributing to an intellectual atmosphere which you profess to find lacking; others of you are even at this moment a little breathless from running to overtake the opportunity before it escaped you. But all of you have had the opportunity. So we have reason to expect good things from you. Our expectations will not be misplaced if you generate the zeal which has kept this place in a stir; nor will they be misplaced if you continue challenging assumptions, including your own, as vigorously as you have challenged some of ours. I hope that many of you will have learned from many of us, as we have learned from you, to be cautious of the logic which rests on untested premises for, as someone has said, such logic is but an organized way of going wrong with confidence.

Be not dismayed by the fact or the prospect of change and play your full share in creating it. Nourish well whatever sense of humor you may have, for you may find that it will lend perspective to your thinking and ease the pain of disappointment, should disappointment sting you. Courage of conviction is a noble attribute and may it grow in you, but may it always be combined with the clarity of mind and capacity to be just and generous. Hard work is still a virtue. Fine plumage is fair to look upon, but it does not always connote substance, so let me remind you, as I did in this amphitheater four years ago, that a nightingale never won a prize at a poultry show.

Come again and see us when you can. Congratulations, good luck, and au revoir.

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